Edul " See Advert page 12



THE ROYAL AERO CLUB OF THE UNITED KINGDOM. OFFICIAL ORGAN OF

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JUNE 13, 1929.

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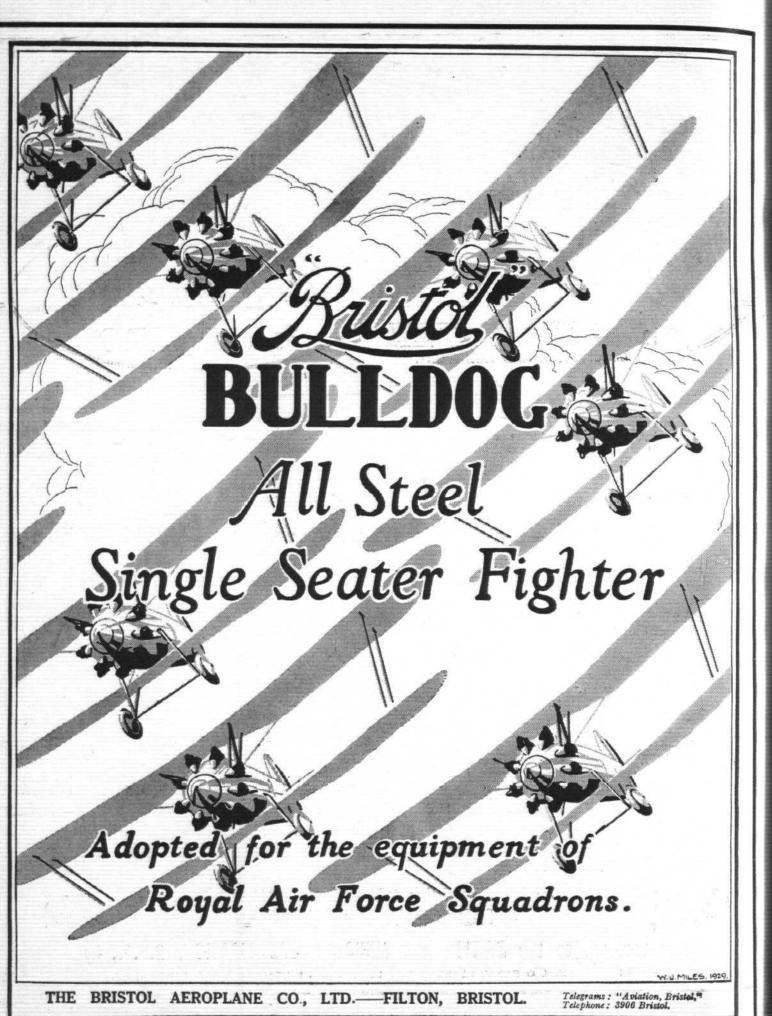
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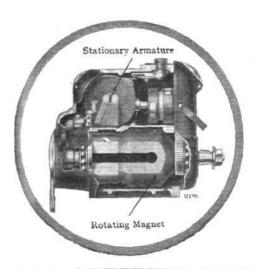
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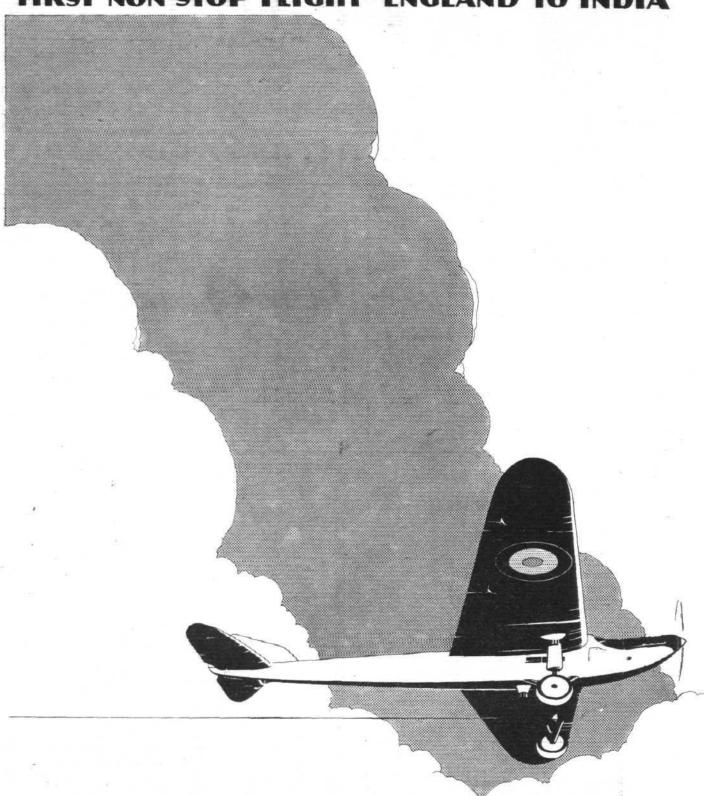
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OFFICIAL ORGAN OF THE ROYAL AERO CLUB OF THE UNITED KINGDOM

No. 1068. (No. 24. Vol. XXI.)

JUNE 13, 1929

Weekly, Price 6d. Post free, 7d.

FIG. 51 cont. Harlin

Editorial Offices: 36, GREAT QUEEN STREET, KINGSWAY, W.C.2 Telephone: Holborn 3211. Telegrams: Truditur, Westcent, London.

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DIARY OF CURRENT AND FORTHCOMING EVENTS
Club Secretaries and others desirous of announcing the
dates of important fixtures are invited to send particulars
for inclusion in this list—

1929.

June 19-22 F.I.A. Conference, Copenhagen.

June 27-30 Rotterdam International Air Meeting.

July 5-6 King's Cup Race and Sidleley Trophy Tour.

July 13 R.A.F. Display at Hendon.

July 16-27 7th International Aero Exhibition, Olympia.

July 25 Bleriot Cross-Channel Flight Anniversary Fete, Calais.

July 28 International Flying Meeting, Sweden.

Aug. 1-14.... French Light Plane Meeting, Orly.

Aug. 15 International Balloon Race, Poland.

Sept. 6-7 Schneider Trophy Race, Solent.

Sept. 10-20 Aero Club de France Meeting, Le Baule.

Oct. 1 Gordon-Bennett Balloon Race, St. Louis, U.S.A.

Oct. 31 Guggenheim Safe-Aircraft Competition Closes.

EDITORIAL COMMENT



UNE 14, 1919, ten years ago to-morrow, was a red letter day in the history of British aviation. On that day Captain Jack Alcock and Lieutenant Arthur Whitten Brown, as they then were, took off from St. John's, Newfoundland, in a Vickers "Vimy" biplane fitted with two Rolls-Royce "Eagle"

engines to attempt to fly to Ireland. How well they succeeded will still be remembered. Leaving St. John's at 5.15 p.m. on June 14, the "Vimy" arrived at Clifden, Ireland, at 9.40 the next morning, having

Ten Years
Ago

crossed the Atlantic in a little more than 16 hours. The distance was approximately 1,900 miles, and the average speed maintained was something

like 115 m.p.h.

The Alcock-Brown flight is an historic one. Not only was it the first non-stop flight from coast to coast, but it was done at a speed which, at the time, was little short of marvellous. The old "Vimy" was not capable of anything like the speed averaged during the flight, but was assisted by a strong following wind. Apart from that, however, Alcock and Brown were not favoured by the weather. On the contrary, fog and rain, and occasionally sleet and snow, hampered the flight, and Alcock afterwards told of how, on several occasions, they narrowly escaped disaster by hitting the sea on coming out of fog banks. It should be recollected that modern navigational equipment was not then available. and that the "Vimy" should have reached Ireland must forever remain a feat of navigation on the part of Whitten Brown which has never since been exceeded. In this connection we cannot refrain from recounting a little incident which may now be told without harm to anyone. A week or so before he left for Newfoundland Lieut. Brown called at the offices of FLIGHT with an article and a number of graphs, dealing with air navigation. One of these charts showed a series of most ingenious curves, by the aid of which the calculation of position was very greatly simplified. This system of curves had been invented by Lieut. Brown, and FLIGHT was naturally pleased that he should have decided to give the

benefit of his invention to readers of FLIGHT, and thus to other would-be air navigators. A few days later Lieut. Brown called again, excited and almost out of "You have not published that article yet?" he asked. On being informed that we had not, he said, "Thank goodness; for heaven's sake don't. The curves I have invented had already been invented by the Admiralty and constitute a secret patent. If they are published I shall be shot at dawn!" Needless to say, the curves were not published, but FLIGHT lost a good "story"!

Capt. Alcock and Lieut. Brown were knighted for their magnificent flight, as well they deserved to be. They had proved that, with a certain degree of luck,

the Atlantic could be crossed by air from west east. That they should have imitators was, of course, inevi-table. But FLIGHT never favoured these subsequent attempts, holding the view that as the feasibility of making the transatlantic flight had once been demonstrated, there was no point in repeating as a "stunt" what had already been accomplished. Many of those who set out to prove that the direct Atlantic flight was relatively "easy" merely proved that the element of luck still plays an important part, and FLIGHT'S view appears to be borne out by the fact that no less than 16 lives have been lost Atlantic flight With the attempts. comparatively recent development of the large seagoing and seaworthy flying - boat, conditions are beginning to change, and the time may come when a flight from coast to coast is a fairly safe undertaking. Hitherto

it has not been so. Alcock and Brown, fully realising the risks they ran, succeeded in proving the possibility and were the first to do so. For that His Majesty conferred knighthoods upon them, and for that the British Empire will ever hold their memory high. Sir John Alcock was not long spared, losing his life in what was a relatively trivial accident. Sir Arthur Whitten Brown is, fortunately, still among us. During the next few days let us honour his name and that of his dead partner in a great adventure, not forgetting the machines and engines which enabled

them to succeed.

Whatever may be one's political views, and whatever may be the effect upon British aviation of the recent change in Government, few inside British aviation circles will fail to applaud the appointment of Lord Thomson of Lord Cardington to the post of Secretary Thomson of State for Air. When last the Labour Party was in office, Lord Thomson occupied the same post, and during a short tenure he proved himself not only a very enthusiastic Air Minister but also a very able one. That he quickly became extremely popular was due partly to his obvious keenness, but largely also to his considerable personal charm.

Of Lord Thomson's achievements during his term of office there is little need to write here. Suffice it to recall that he was largely responsible for the

revival of a British airship programme, and that in service and civilian aviation he and the Labour Government faithfully carried out the undertaking to which the previous Government was committed.

The question that naturally occupies the the moment is the effect a Labour Government is likely to have on British aviation during the next year or two. Personally we believe that the Labour Party is as fully alive to the vital importance of the air to the British Empire as is any other political party in the land. Lord Thomson personally certainly is, and we believe that he will carry enough weight with his colleagues in the Cabinet to ensure that if there is no great expansion of aviation during the next few years, there will at least be no serious curtailment in the programme which successive Governments have laid down as a minimum consistent with safety.

minds of aviation folk at

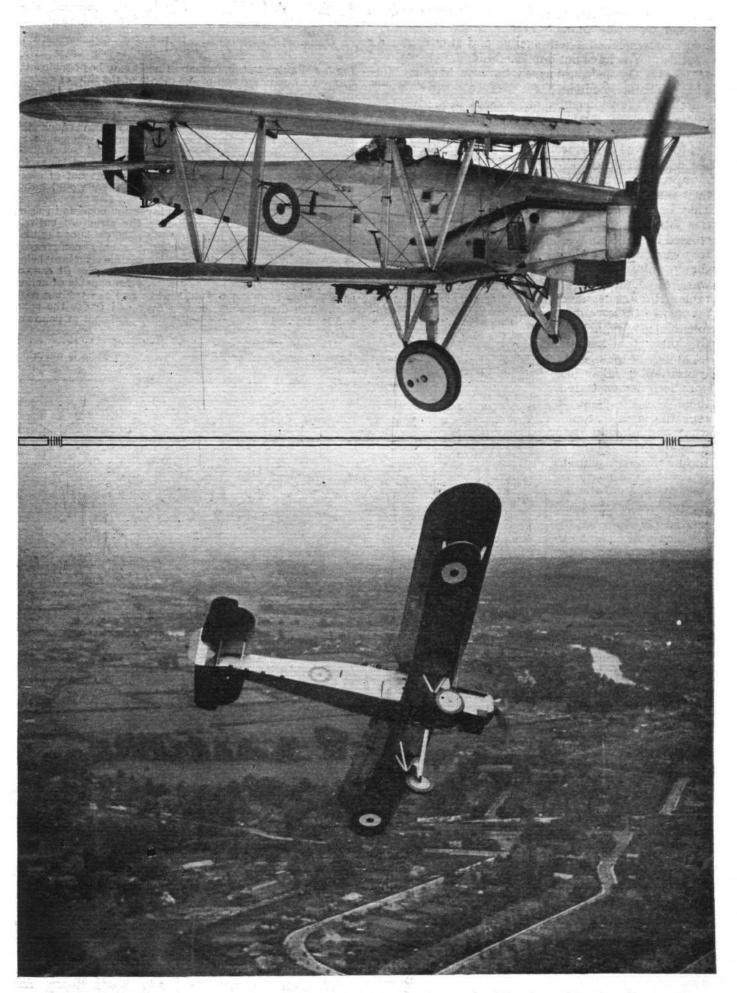
Personally we incline to the view that the Labour Government is likely to devote more money to the development of civil aviation than have previous Governments, and that will inevitably be to the good of the Empire as a whole.

In commenting upon the change of Air Minister, one should not fail to give credit where credit is due. During his term of office Sir Samuel Hoare has done a tremendous amount of good, not only by his work on the Cabinet but also by the manner in which he has ever done his best to popularise aviation by flying whenever he could possibly do

Sir Samuel's wife, the Lady Maud Hoare, has accompanied her husband on a number of flights, and by her splendid example has done much to further the cause of British aviation.



["FLIGHT" Photograph Brig.-Gen. Lord Thomson, C.B.E., D.S.O., the Secretary of State for Air in the new Labour Government.



HORSLEYS FOR HELLAS: These photographs show the first of a batch of Hawker "Horsleys" on order for the Greek Government, two of whose representatives, Commander Falconakis and Lieut. Plastiras, may be seen on board. The pilot was Lieut. Bulman, and the photographs, which were taken from another aeroplane, indicate the manœuvrability of the machine which, in the lower picture, is in an almost vertical bank.

SINGLE-SPAR MONOPLANE WINGS

Details of the Stieger Mono-Spar System Revealed

FOR several months now rumour has been busy concerning a new form of wing construction, which was alleged to have "revolutionised" aircraft construction, and at the same time to have solved all the problems hitherto met with in the production of monoplane wings, more particularly cantilever monoplane wings. Let it be said that the originators of the new system make no such strong claims, but were somewhat handicapped in the matter of explanations by restrictions connected with patents, &c. These restrictions have now been overcome, and it has become possible to give an outline of at least one form which the new type of wing construction may take.

Before describing the Stieger mono-spar wing system, it may be of interest to recall that, with the exception of Mr. Stieger himself, those interested in the development of the new wing system are all well known in British aviation circles. Mr. Stieger is, we understand, a Swiss engineer, and was employed in Beardmore's aircraft department. When that closed down, he with Mr. Alan Chorlton and Squadron-Leader Rollo Haig, also of Beardmore's, formed, with Mr. M. L. Bramson, of anti-stall gear fame, the Monospar Co., Ltd., for the development and exploitation of the new wing system. The address of the new company is at

4, Broad Street Place, London, E.C.2. In itself the single-spar wing is no novelty. In Germany large numbers of gliders have been built having but a single main spar, and more recently such German aircraft firms as the Bavarian Aircraft Works (B.F.W.), whose designer is Herr Messerschmitt, have produced commercial aircraft in which the wings have single spars, built of metal. German practice is to use a main I-section or box section, and to cover the leading edge of the wing also with plywood or metal as the case may be the plywood or metal as the case may be, thus building up a tube composed of a curved front wall and a straight rear wall, the combined spar and leading edge forming a letter D in section. In this country also we have had single-spar monoplane wings, such as, to take one example which comes to mind, the triangular box section spar designed by Mr. H. S. Shackleton for the little A.N.E.C. monoplane. In all these cases the first aim of the designers has been to produce a spar which not only resists pure bending load without too pronounced deflection, but also torsional loads caused by travel of the c.p., and use of ailerons. Of the two problems the former is probably far the easier, and the latter, i.e., that of avoiding

torsion, is aggravated by the ever-present fear of flutter. In this country the cantilever monoplane wing has never become really popular, and not the least reason for that has doubtless been the fear of torsion and flutter. Highlyqualified technicians are still divided on the question monoplane or biplane, and the pros and cons have been advanced by both schools with about equal strength, so that so far no theoretical basis exists upon which to form any very decided opinion one way or the other. That the cantilever monoplane has a certain number of practical advantages may, perhaps, be granted, and if some new form of wing construction could be devised which would reduce the wing weight while still giving adequate stiffness and absence of flutter, there is little doubt that the monoplane would gain in popularity. Whether the Stieger wing system will solve the riddle yet remains to be seen. In the communication sent to us by the Mono-spar Company, reference is made to comparative tests made on a section of a mono-spar wing and on a cantilever wing of more "orthodox" design. Both types of test wing were about one-third of the complete wing, and both were designed to the same factors, loading, area, The weight of the original section was, the memorandum states, 610 lbs., with an area of 254 sq. ft., and a wing loading of 17.4 lb./sq. ft. The corresponding mono-spar test section weighed 185 lbs., to which has to be added the actual fabric covering and certain parts which were irrevelant to the test, bringing the total weight of the mono-spar section up to 265 lbs. or less than 1·1 lbs./sq. ft., whereas the weight of the "orthodox" section was 2·4 lbs./sq. ft. These figures are rather startling, but the data available are insufficient to form a basis for strict comparison. We learn that the actual test wing is to be exhibited at Olympia, as well as We learn that the

the Air Ministry test figures, and thus it may be possible later to form a clearer opinion of the merits of the Stieger system. In the meantime, the figures quoted are such as to cause one to regard the new type of construction with more than

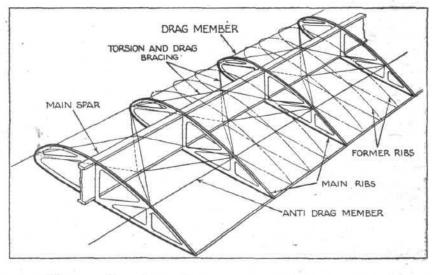
ordinary interest.
Our diagrammatic sketch shows one form which the Stieger wing may take: the single spar is shown as an I-section beam, but we take it that it could actually be almost any section desired, such as a box or a lattice girder beam. The I-section is good in bending, but not of much use in torsion, and it is presumed that there would be no objection to using other sections.

The basic idea of Mr. Stieger's invention consists in using

a single rigid member, completing the structure entirely with tension members, i.e., wires, tie rods, cable or the like.

In the Stieger single-spar wing, the only compression member is the spar itself, the rest of the structure being composed of wires such as the leading edge wire (it can, of course, be a metal strip or any other form capable of action as a tension member) the drag wires and the trailing edge wire. The drag bracing crosses over and under the spar, and is attached to top and bottom flange of spar at points of intersection

It should be realised that in a wing of this type, much depends upon the "end fixings," i.e., the system is unstable,



as shown in the diagram, and requires for its completion some form of end attachment which will stabilise it. For instance, at the wing tip, one may imagine two diagonal struts running one from the nose of the outer rib to some point on the front of the spar farther inboard, and another from the rear portion of the rib to the back of the spar, opposite the joint of the front diagonal strut. At the root there will, it is supposed, be a similar arrangement, or the leading and trailing edge wires may be anchored to the fuselage, to which also would, in that case, be secured the innermost rib at the points where the drag bracing is attached. Otherwise the rib would, of course, buckle laterally under the tension of the wires. These details are not shown in the diagram, as they were not supplied to us, but attention should be called to the necessity for them.

Claims .- From the memorandum sent us by the Mono-spar Company, we quote the following advantages claimed for the Stieger mono-spar wing system :-

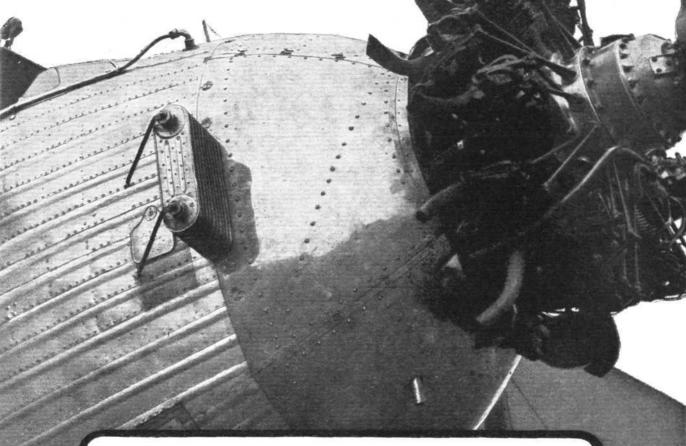
(1) Considerably lighter than any other cantilever wing.
(2) Makes it possible to have the aerodynamic advantages of a full cantilever wing with the lightness of the corresponding biplane (3) All stresses can be accurately calculated.
(4) Particular care has been taken to overcome "flutter," (5) Torsional stiffness is unaffected by bending loads applied to the wings. (6) The degree of torsional stiffness can be accurately calculated, and if necessary can be altered to suit changed conditions. (7) For a given torsional strength, the stiffness is greater. (8) Great robustness of all members. (9) Freedom from obstructions within the wing, making room for tanks, etc. (10) The well-tried fabric covering can be employed. (11) The provision of three stiffly supported points within the wing structure for attaching engines, undercarriage, etc. (12) Cheapness of manufacture.

VICKERS-POTTS OIL COOLER

[ENGLISH PATENT Nº 285524]

FOREIGN PATENTS APPLIED FOR





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The illustration shows a Vickers-Potts Oil Cooler mounted on an Armstrong-Si!deley "Jaguar" installation.

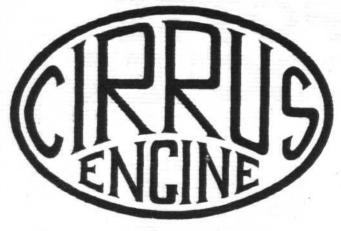
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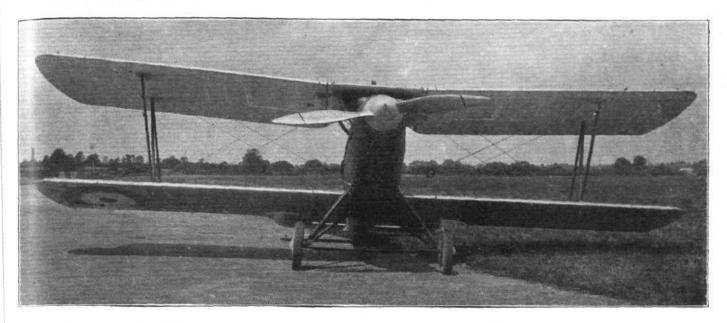
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THE PARNALL "PIPIT": A dihedral on the top plane only is one of its characteristic features.

THE PARNALL "PIPIT"

Rolls-Royce "F" Type Engine

THE Parnall "Pipit" is a single-seater ship's fighter, fitted with a Rolls Royce "F" type engine. The lines are particularly clean, all extraneous resistances being reduced to a minimum. It is an "all-metal" type, stainless steel and duralumin forming the chief structural materials. Land and seaplane undercarriages are quickly interchangeable, as they are self-contained units, attached to the fuselage at common fixing points.

Accessibility is one of the features of the design. All cowl-

Accessibility is one of the features of the design. All cowling and fuselage fairing from the nose to the tail is quickly detachable.

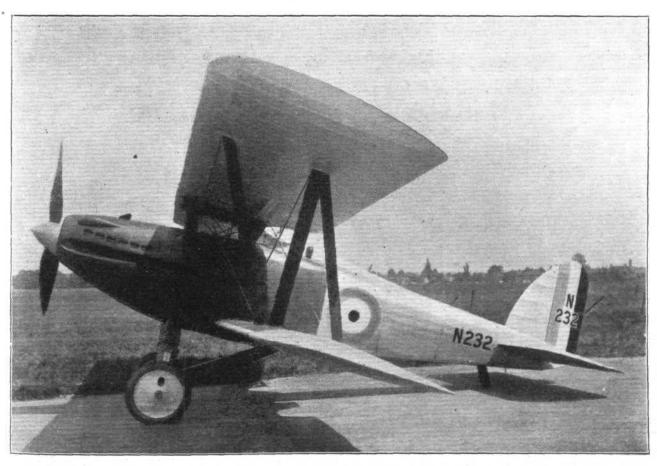
The armament consists of two synchronised Vickers guns,

laid on either side of the pilot at seat level, with the barrels protruding into troughs in the fuselage sides. Provision is

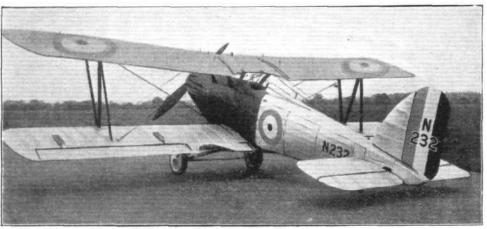
protruding into troughs in the fuselage sides. Provision is also made for carrying bombs under the bottom wings.

A short-wave wireless set, working on a fixed aerial, is located immediately behind the pilot, and the oxygen apparatus, Very pistol, together with other service equip ment, is conveniently disposed around the cockpit.

The cockpit is particularly free from draughts at all speeds, and sufficient heat is supplied by the retractable radiator to obviate the necessity for electrically heated clothing up to 20,000 ft. under winter conditions; whilst a controllable vent regulates the temperature for hot weather.



THE PARNALL "PIPIT": Clean lines characterise this single-seater Ship's Fighter. The engine is a Rolls-Royce "F" type. D 2



THE PARNALL "PIPIT": In this three-quarter rear view the fuselage covering is shown in place.

The disposition of the wings and fuselage shape forward combined with an adjustable seat, afford the pilot excellent vision for fighting purposes or landing.

Details of the performance with Rolls Royce F.XII.S engine

may not be published. The machine, however, has a very good performance with the Rolls Royce F.XI un-supercharged engine, and the slow alighting speed of 55 m.p.h., coupled with servo-actuated brakes independently operated on either wheel, greatly facilitates the operation of deck landing.

Wings.—Equal wing span, single

bay, staggered biplane.

The wings are detachable in two boxed units with jury struts fitted without slacking flying wires. The duralumin spars consist of three drawn sections riveted together and carry pressed duralumin ribs. Gap struts and drag struts are of stainless steel. The top centre-section, which carries an auxiliary skin type radiator, is attached to the fuselage by four steel struts

carries an auxiliary skin type radiator, is attached to the fuselage by four steel struts and bracing wires. Ailerons are fitted to all four wings.

Fuselage.—Rectangular structure of square duralumin struts and stainless steel tubes faired to an oval section. The aluminium engine cowl and fabric-covered fuselage panels are all quickly removable.

Tail Unit.—Monoplane type, with balanced rudder, and elevators fabric covered. Tail plane adjustable.

Undercarriage.—Cross axle Vee-

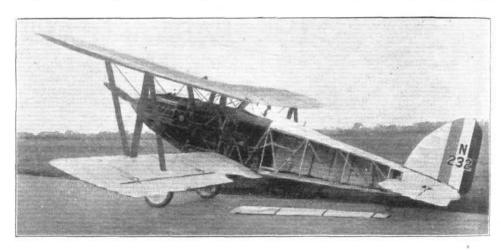
Undercarriage.—Cross axle Veetype. The front legs incorporate double-acting oleo shock absorbers. Palmer type wheel brakes are fitted and servo actuated from the rudder bar. Interchangeable seaplane chassis with twin single-step long type duralumin floats can be fitted alternatively.

Power Plant.—One 495 h.p. Rolls Royce F.XI, water-cooled engine on riveted stainless steel mounting. Under-slung retractable fuselage radiator in series with wing radiator. Two main fuel tanks in top wings, capacity 68 gallons. Auxiliary tank 18 gallons. Gravity feed.

gallons. Gravity feed.

Accommodation.—Pilot behind cut-out trailing edge of centre section. Seat and rudder bar adjustable.

When fitted with Rolls-Royce F.XI unsupercharged engine, the '' Pipit'' has the following weights: Empty, 3,050 lbs.:

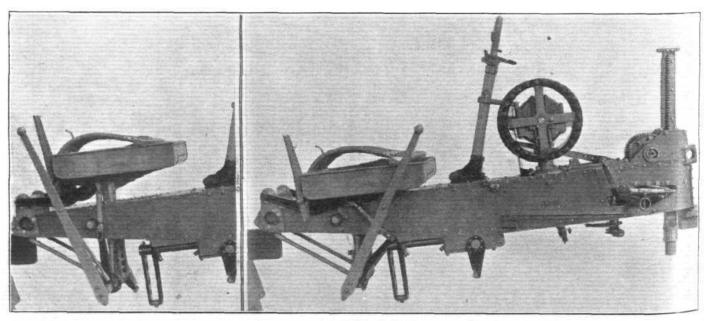


THE PARNALL "PIPIT": With Fuselage Side Panels removed.

total weight, 3,980 lbs.; wing loading, 11 lbs./sq. ft.; power loading, 8 lbs./h.p.

With the same engine the following performance is quoted:

Performance.—Speed at ground level, 168 m.p.h.; at



THE CONTROL UNIT ON THE "PIPIT": Three-point suspension is adopted, and the pilot's seat can be raised and lowered. It is shown in the raised position on the left. Rubber cords are used to balance the weight of the pilot. The retractable radiator is supported on a threaded column as shown, and is operated by one of the two hand wheels.



AND THE NAME OF ALL THESE WAS AVIAN

In 1919, the first modern light aeroplane took the air and has, so to speak, stayed there ever since. It was the direct ancestor of the Avro Avian.

In 1927, a light aerop!ane made the first non-stop flight from London to Riga. It was an Avro Avian.

Last year, a light aeroplane crossed America from New York to Los Angeles and back for the first time; light aeroplanes broke the records for the longest solo flight and the longest flight ever made in a light machine; and light aeroplanes flew in record time to Australia to Capetown, to India, and to Berlin. They were all Avro Avians.

This year, on March 16th, the first aeroplane owned by any British crown colony, protectorate or mandated territory and used for survey purposes, was christened "Tanganyika" by the Governor of that territory. It was an Avro Avian.

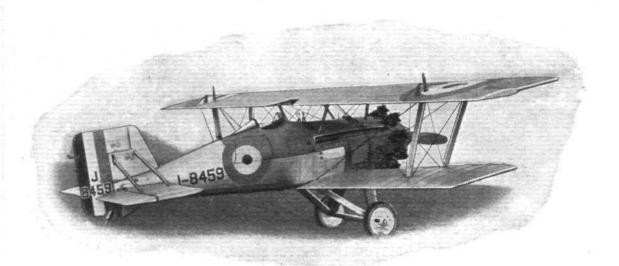
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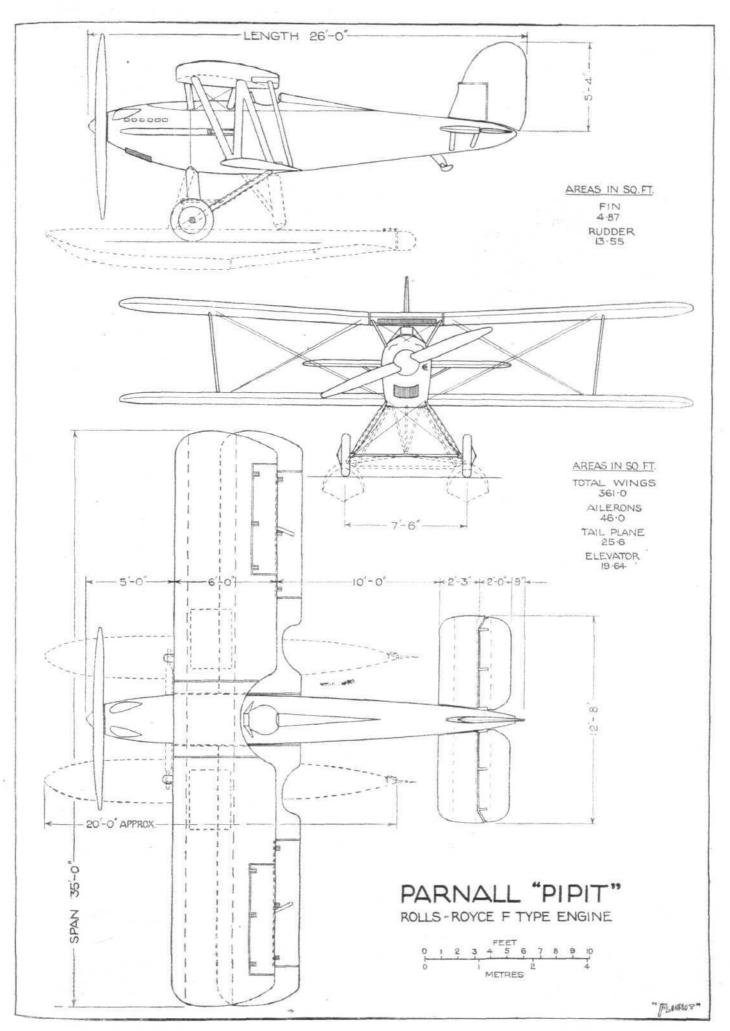
R.A.F. DISPLAY at HENDON, July 13th.

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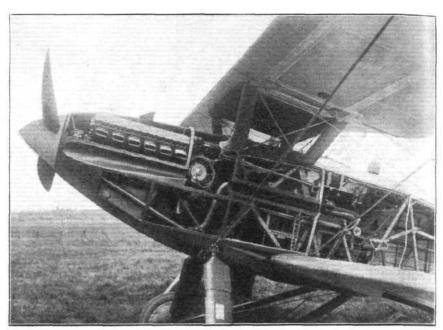




THE PARNALL "PIPIT": Three-view General Arrangement Drawings. The Seaplane Undercarriage is shown in dotted line.

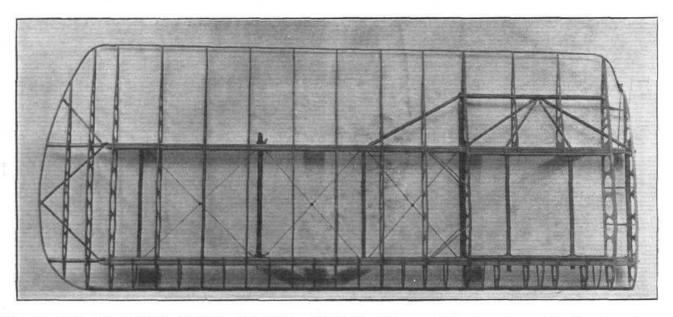


Inspection is facilitated by quickly-detachable panels. The photograph below shows the whole forward portion stripped. On the left is the wireless compartment.



3,000 ft., 173 m.p.h.; at 10,000 ft., 168 m.p.h.; landing speed, 55 m.p.h.; rate of climb at 3,000 ft., 1,600 ft./min. Climb to 10,000 ft. $7\frac{1}{2}$ mins.

Areas:—Total wings, 361 sq. ft.; Total ailerons, 46·1 sq. ft.; tail plane, 25·6 sq. ft.; elevator, 19·64 sq. ft.; fin, 4·87 sq. ft.; rudder, 13·55 sq. ft.



ONE OF THE ALL-METAL WINGS OF THE "PIPIT": The petrol tank is housed in the inner bay, and the photograph shows how the drag bracing, in the form of tubes, is carried around this bay.

Royal Visitor at Croydon

The Sultan of Zanzibar visited Croydon on June 8, and was received by the Director of Civil Aviation (Air Vice-Marshal Sir Sefton Brancker), the Deputy Director (Mr. F. G. L. Bertram), Major L. F. Richard (Chief Aerodrome officer), Colonel H. Burchall (Assistant General Manager), and Major H. G. Brackley (Air Superintendent) of Imperial Airways. He was taken for a flight in one of the new Armstrong Whitworth "Argosies" (Jaguars) by Capt. H. J. Horsey, the Imperial Airways pilot. Whilst passing over Kenley, he witnessed R.A.F. fighters manœuvring, which impressed the Sultan and his son. Capt. Neville Stack, the chief pilot of A.D.C. Aircraft, then took up a Nimbus 9 and dropped a parachute mail container opposite the official party. The container was opened and postcards properly stamped at the Aerodrome Post Office, and marked with the blue Air Mail labels were handed to the guests. This demonstrated the possibilities of the delivery of mail by air transport at intermediate places en route. Capt. Stack then brought a light aeroplane out of a hangar, unfolded the wings

and in a very few minutes was in the air, where he gave an exhibition.

Wing-Commander Dunville

WE regret to have to record the death of Wing-Commander John Dunville Dunville, C.B.E., R.A.F., who, born in 1866, died on June 10, 1929, after a long illness. He was one of our pioneer balloonists. He began his balloon ascents with the late Hon. C. S. Rolls, and in 1907 he had a balloon built for himself by Short Bros. Subsequently, he owned many balloons, and at one time held the record for the longest time in the air by a British spherical balloon, made during a race from Berlin in 1908. At the 1908 Gordon-Bennett balloon race, he took financial responsibility for assisting Great Britain to be represented. With the advent of the aeroplane, he helped to organise flying meetings in England and Ireland. He joined the R.N.A.S. in 1915, and served until after the Armistice, receiving the C.B.E. for misservices in 1917. In 1926, he was made Hon. Wing-Commander, R.A.F. For many years he was an active member of the Royal Aero Club committee.

NAPIER LION RECORDS.

NOTABLE ACHIEVEMENTS.

The first non-stop flight from England to India, made by the Fairey monoplane with a Napier Lion engine of 530 h.p., adds one more record to a unique series of successes gained by one type of engine within a period of less than a year, and is a striking confirmation of the high quality of British aero engine

practice.

It will be recalled that last November Flight-Lieutenant D'Arcy Greig, flying a Supermarine seaplane fitted with a racing Napier Lion engine of 900 h.p., set up a new speed record of 319.57 miles an hour. The same type of engine was used as the power unit for Sir Henry Segrave's motor-car with which last March he set up a new world's speed record on land of 231.36 miles an hour. The same type of engine was also used in Miss England, the motor-boat in which he won the world's motor-boat championship; and the racing Lion engine was installed in Captain Malcolm Campbell's motor-car which in South Africa set up new records of 212 miles and 211 miles an hour for five miles and five kilometres respectively.

metres respectively.

Thus the racing version has easily proved the highest-powered and lightest internal-combustion unit yet produced; the new standard Service engine of 530 h.p. has flown for 50 hours without stopping, and for much of that time under heavy load conditions; and the earlier mark of 450 h.p., it will be recalled, was used for the Far East cruise of the Southampton flying boats, in which 180,000 engine miles were run without a single forced landing due to engine trouble.

So far as can be traced no other engine in the world has put such a list of notable achievements to its credit within such a short space of time.



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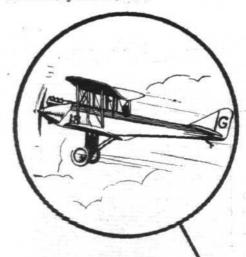
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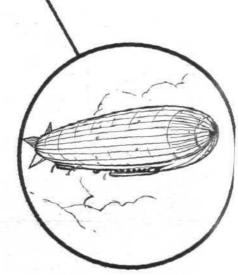
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THE CURTISS-HANDLEY PAGE SLOT INSTALLATION

NEW method of installing the Handley Page slot on the wings of a machine has been devised by the engineering department of the Curtiss Aeroplane and It was developed in connection with the installa-Motor Co. tion, at the request of the U.S. Bureau of Aeronautics, of slots on a Curtiss "Seahawk," a high-performance, singleseater shipboard fighter.

Hitherto—as, no doubt, our readers are aware—the practice in the installation of slots has been to attach the auxiliary foil to the leading edge of the wing by means of links pivoting on supports located underneath the wing

in the air-stream.
On the Curtiss "Seahawk," however, the slot mechanism is housed entirely within the wing, the auxiliary foil being attached by means of four steel tubes, which slide in and out of the leading edge between rollers held in metal frames bolted to the forward wing spar. This is shown in the diagram in the accompanying illustration. A locking device is provided, by means of which the slots can, when desired, rendered inoperative to prevent interference manœuvrability.

Several advantages are claimed for the Curtiss system of installation; it is not only cleaner aerodynamically, the operating mechanism being entirely enclosed, but it is also said to be more efficient, since—as was determined by experiment with large-scale models in the Curtiss wind tunnel it places the auxiliary foil in a better position with relation



Echo of Whitsun Meeting

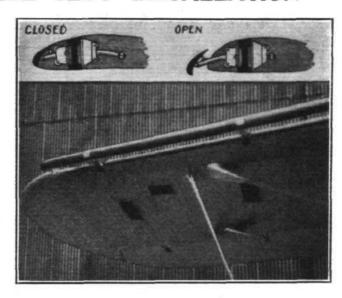
THE Northamptonshire Aero Club ask us to make clear, in case any misapprehension exists, that the Westland "Widgeon," which crashed at their Whitsun meeting when flown by Mr. Byron, did not have Handley Page slots. The programme stated that the particular performance would be given on a slotted Widgeon, but it was found later that Mr. Byron's machine had no slots, and there was no time to alter the programme. It was thought at first that the difficulty could be overcome by borrowing Mr. Napier's slotted "Widgeon," but, unfortunately, he was unable to arrive, so Mr. Byron flew the "Widgeon" without Handley Page slots.

R.A.F., Middle East

The Royal Air Force, Middle East, dinner was held at the Hotel Cecil on June 6, when Air Vice-Marshal Sir Geoffrey Salmond presided.

"Bluebirds " at Heston

It is Auto Auctions, Ltd., who have taken the show room in which will be exhibited the Blackburn "Bluebirds"



to the wing than does the link-method. In flight tests landing speed was much reduced, positive lateral control provided at the stalling speed, and spinning effectively prevented.



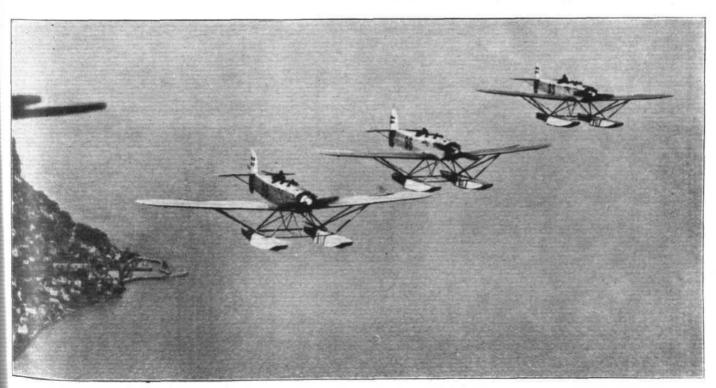
at Heston Aerodrome. They are the sole concessionnaires for the "Bluebirds.

The American Cirrus

CIRRUS AERO ENGINES, LTD., send us a copy of a telegram from Lady Heath which reports that she flew a Cirrus-Avian 6,000 miles on a sales tour from the Atlantic to the Pacific, demonstrating to 40 aircraft manufacturers and schools. The Cirrus gave no trouble whatever in spite of the extreme temperatures encountered.

Records on Scintilla Magnetos

SCINTILLA, LTD., inform us that the Ryan monoplane Fortworth (Wright "Whirlwind"), which recently set up an endurance record (under refuelling conditions) of 7 days 4 hrs. 40 mins. in America, had its engine equipped with Scintilla magnetos. Lieut. W. T. Tomlinson, of the United States Navy, also used Scintilla magnetos when he set up a speed record recently by covering a 100-mile course at an average speed of 175 m.p.h. in a seaplane.



BRITISH ENGINES ABROAD: Three Heinkel seaplanes, fitted with Armstrong-Siddeley 460-500-h.p. geared "Jaguar" engines, belonging to the Danish Government, flying in formation

481

THE KING'S CUP AIR RACE

A Large Entry for Next Month's Classic Two-Days' Race Round Britain.

THIS year's air race for the Cup presented by His Majesty the King — the eighth contest to be held—has produced a record entry of competitors, as may be seen from the official entry list which we publish below. The list actually closed on June 7 last, but it should be noted that late entries may be received up to noon on June 14, so that it is possible that the already large number of 56 competitors may be increased by the time the race itself starts, on July 5-6 next.

We have already

We have already given particulars of this year's contest (see FLIGHT for May 2 and 30), so it will only be necessary here to refer briefly to the main features of the race. As on previous occasions, it will be a two-days' event, starting and finishing at London's new aerodrome at Heston Park, near Hounslow.

The course—a sketch-map of which is given on this page—of approximately

No and Ident



KING'S CUP AIR RACE: Sketch map of the course.

1,179 miles will therefore be divided into two sections, as follows—Section 1, July 5. Heston— Blackpool, Squire's Gate Aerodrome, 595 miles, via Henlow Air Station (turning point); Norwich, Mousehold Aero-drome (land); Had-Mousehold leigh Aerodrome (turning point); Hornchurch Air Station (turning point); Lympne Aerodrome (land); Southamp-(land); Southamp-ton, Hamble Aerodrome (land); and Bristol, Filton Aerodrome (land). Section 2, July 6. Black-pool — Heston, 584 miles, via Silloth (turning point); Glasgow, Renfrew Aerodrome (land); Dunbar (turning point); Newcastle, Cramlington Aerodrome (land) ; Leeds, Sherburn - in - Elmet Aerodrome (land); Nottingham, Hucknall Aerodrome (land); and Bir-mingham, Castle Bromwich Aerodrome (land).

Being a handicap race, competitors will start from Heston according to their handicap allowance,

COMPETITORS IN THE KING'S CUP AIR RACE, JULY 5, 6, 1929

No. and Ide	ent.				
Mark	Entrant.	Machine.	Engine		Pilot
1 (EBTO)	W. L. Handley	S.E.5a	120 h.p. Airdisco	100	Flt./Lieut. T. Rose, D.F.C.
2 (EBRN)	Wing-Com. E. R. Manning, D.S.O., M.C.	Westland Widgeon III	75 h.p. Cirrus II		Wing-Com. E. R. Manning, D.S.O., M.C.
3 (AADE)	C. S. Napier	Westland Widgeon III	85 h.p. Gipsy		C. S. Napier.
4 (AAEW)	D C C i U	D.H. Moth G.	OF I OIL		D. S. Schreiber.
5 (EBTH)	Y N Thislings	Th TT. Mr. 43. 37	ME L - Classic II		V. M. Dickinson.
6 (AAEE)	TT T T T T T T T T T T T T T T T T T T	D.H. Moth G Coupé	OF L - Cimus		
7 (AAPH)					Hon. Lady Bailey.
8 (AADP)	73 TO 7				Capt. W. L. Hope.
9 (EBRO)	(4. T. Wollersouth 22		85 h.p Gipsy		B. E. Lewis.
		Westland Widgeon III	85 h.p. Armstrong Siddeley G		" J. Wellworth."
10 (EBRM)	R. G. Cazalet	Westland Widgeon III	75 h.p. Cirrus II		R. G. Cazalet.
II (AAHB)	E. Tiarks	D.H. Moth G.	85 h.p Gipsy		Flt./Lieut. Kimmins.
12 (AAHG)	A. F. Wallace	D.H. Moth G	85 h.p. Gipsy		A. F. Wallace,
13 (EBOO)	C. H. Latimer Needham	H.A.C.2 " Minus "	31 h.p. Bristol Cherub III	200.00	Flt./Lieut. C. F. Le Poer Trench.
14	C. H. Latimer Needham	H.A.C.3 " Meteor "	31 h.p. Bristol Cherub III		Flt./Lieut. G. R. Ashton.
15 (EBPQ)	Lieut. L. G. Richardson, R.N	D.H. Moth	85 h.p. Cirrus III	(A (A	Lieut. L. G. Richardson, R.N.
16 (EBXJ)	H. J. V. Ashworth	Avro Avian III	75 h.p. Cirrus II		H. J. V. Ashworth.
17 (EBFP)	J. Parkinson	Simmonds Spartan	85 h.p. Cirrus III	200	F./O. R. W. Jackson.
18 (AAHH)	Sir G. Stanley White, Bart	Bristol Bulldog	490 h.p. Bristol Jupiter VIA		C. F. Uwins.
19 (AABT)	Lady Wakefield	Avro Avian IVm	85 h.p. Armstrong Siddeley	Genet	Flt./Lieut. S. N. Webster, A.F.C.
20 (AAHR)	Sir Charles C. Wakefield, Bart.	D.H. Moth G Coupé	85 h.p. Gipsy		Capt. H. S. Broad.
21 (AACO)	J. W. P. Chalmers	D.H. Moth G	85 h.p. Gipsy		J. W. P. Chalmers.
22 (AABR)	J. F. Leeming	Avro Avian IVM	85 h.p. Armstrong Siddeley		H. A. Brown.
23 (AABS)	Alderman W. Davy	Avro Avian IVM	85 h.p. Armstrong Siddeley	Genet	I. Oliver,
24	W. L. Roberts	Simmonds Spartan			F./O. H. T. Andrews.
25 ~	O. E. Simmonds	Simmonds Spartan	105 h.p. Cirrus Hermes		F./O. C. S. Staniland.
26 (AAGN)	Time C. I. T. A. Camanana	Simmonds Spartan	of he Cience TIT		LieutCol. L. A. Strange.
27 (EBQN)	P. N. G. Peters.	Avro Avian I	75 h.p. Cirrus II		F./O. G. Thorne.
28 (AAGY)	Flt./Lieut. T. B. Bruce, M.C.	Simmonds Spartan	OR I DI TTT		Flt./Lieut. T, B. Bruce, M.C.
29 (EBY I)	TT TO T	D.H. Moth X	me t		H. R. Law.
30 (EAUM)	TO AN IT TO TO A		On has Classes T		P./O. H. H. Leech
31 (EBOM)	The Duke of Northumberland, K.G				F./O. A. H. Wheeler.
32 (AAAL)		TO THE ME IN CO.			
			85 h.p. Gipsy		Miss W. E. Spooner.
33 (AADX)	A. C. M. Jackaman	D.H. Moth G Coupé	85 h.p. Gipsy		A. C. M. Jackaman.
	A. S. Butler	D.H. Moth G	85 h.p. Gipsy		A. S. Butler.
	A. S. Butler	D.H. Moth G Coupé	85 h.p. Gipsy		Mrs. A. S. Butler.
	Capt. G. de Havilland	D.H. Moth G	85 h.p. Gips y	4.4	Capt. G. de Havilland.
37 (AADA)	J. D. Irving	D.H. Moth G	85 h.p. Gipsy		J. D. Irving.
38 (AAHO)	L. St. C. Ingram	D.H. Moth G	85 h.p. Gipsy		F./O. P. P. Grey.
39 (J.7520)	D. Longden	Gloster Grebe	385 h.p. Armstrong Siddeley		"R. Llewellyn."
40 (J.7519)	SqLdr. The Rt. Hon. F. E. Guest, C.B.E., D.S.O.	Gloster Grebe	385 h.p. Armstrong Siddeley	Jaguar	F./O. E. H. Fielden, A.F.C.
41 (AACC)	Col. The Master of Sempill	Bluebird IV	85 h.p. Cirrus III		Col. The Master of Sempil.
42 (AAII)	L. E. R. Bellairs	" Martlet "	75 h.p. ABC Hornet		L. E. R. Bellairs.
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SPEED RECORD over 500 kilos with load of 1,000 kms. D.H. Hound . . . 158.656 m.p.h.

SPEED RECORD over 500 kilos with load of 500 kms. D.H. WORLD'S Hound . . . 158.656 m.p.h.

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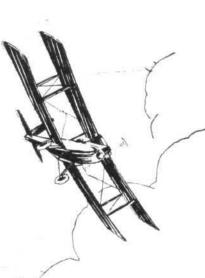
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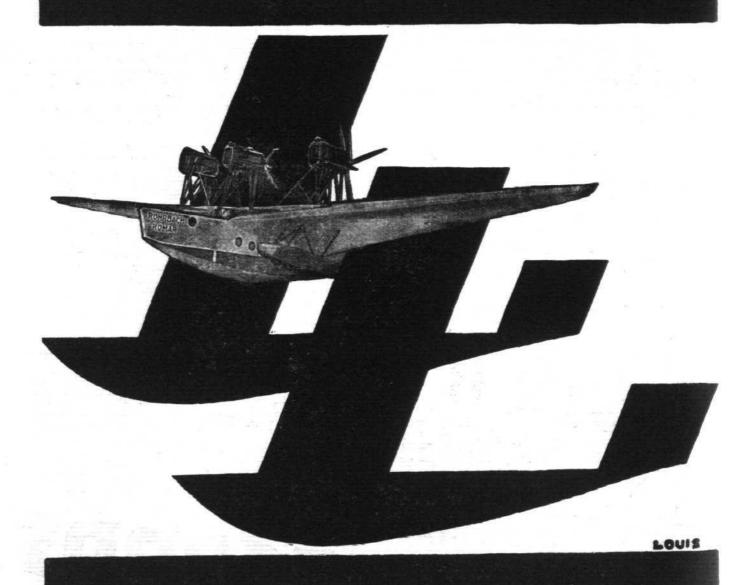
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1 7 4			great and the same of the same		
No. and Idea Mark	Entrant.	Machine.	Engine.		Pilot.
43 (AADC)	Capt. W. R. Bailey	D.H. Moth G	85 h.p. Gipsy	2.	Capt. W. R. Bailey.
44	F./O. J. Clarke	Clarke " Cheetah "	30 h.p. Blackburne Thrush	1	F./O. J. Clarke.
45 (AAIG)		Hendy " Hobo "	40 h.p. ABC Scorpion II		Capt. E. W. Percival
46 (EBQH)	A. S. Butler	D. H.Moth GS	85 h.p. Gipsy		A. S. Butler.
47 (EBWX)	Capt. H. H. Balfour, M.C., M.P.	D.H. Moth X	75 h.p. Cirrus II	** **	Capt. H. H. Balfour, M.C., M.P.
48 (AAAT)	LieutCol. J. Barrett-Lennard, C.B.E.	Avro Avian		**	
49 (AAHJ)	Lieut-Col. M. O. Darby, O.B.E.	Avro Avian IVM	105 h.p. Cirrus Hermes	(808)	
50 (EBOJ)	Capt. T. N. Stack, A.F.C.	Nimbus Martinsyde	300 h.p. ADC Nimbus		Capt. T. N. Stack, A.F.C.
51 (EBNQ)	Sir Robert McLean	Vickers 141	490 h.p. Rolls-Royce F.II		
52	SqLdr. C. A. Ridley, D.S.O., M.C.	Bluebird IV	85 h.p. Cirrus III	334 339	Flt./Lieut. D. D'A. A. Greig, D.F.C.,
100					A.F.C.
53 (AAKH)	R. F. Clark	Avro Avian	85 h.p. Gipsy	:: ::	J. C. Cantrill.
54 (EBVO)	R. Blackburn	Blackburn Lincock	180 h.p. AS. Lynx		Capt. A. M. Blake.
55 (AAFZ)	A. E. Short	Short Mussel	85 h.p. Cirrus III		J. L. Parker.
56 EBJP)	C. H. Latimer Needham	Supermarine Sparrow	31 h.p. Bristol Cherub III		Fit./Lieut. E. E. Arnold, D.F.C.

and similarly, plus or minus time gained or lost on the first section, from Blackpool on the second day, so that the first in at Heston will be the winner.

We need not remind our readers that the Siddeley Trophy Tour, for the Challenge Cup presented by Mr. J. D. Siddeley, will form a second event, being a handicap race for light 'planes which will be flown simultaneously with the King's Cup race and over the same course. Competitors may take part in both events, but the machines must belong to a Light 'Plane Club or a member, and the pilot must be a member also; or they may belong to a private owner. Both races, it might be added, are confined to British subjects, aircraft, and engines.

Regarding the entry for the King's Cup, it will be noticed that light 'planes are in the majority, being made up as follows:—D.H. "Moth" (all types), 21; Avro "Avian" (all types), 8; Simmonds "Spartan," 5; Westland "Widgeon," 4; Blackburn "Bluebird," 2; H.A.C., 2; and one each of Avro "Baby," Clarke "Cheetah," Hendy "Hobo," Martlet, Short "Mussel," and Supermarine "Sparrow"—

a total of 48. Of the remaining eight larger fry, there are two Gloster "Grebes," two S.E.5a, a Blackburn "Lincock," a Bristol "Bulldog," an A.D.C. Nimbus-Martinsyde, and a Vickers 141—altogether 56 machines.

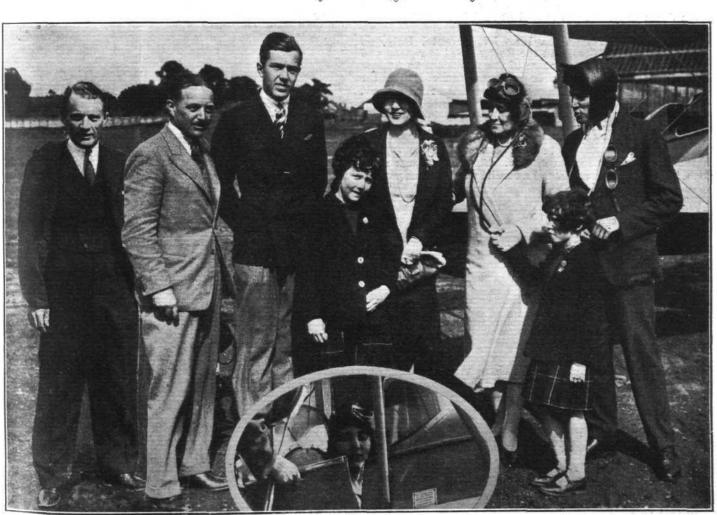
The following are new types making their first public bow—Clarke "Cheetah," Hendy "Hobo," Martlet, and Vickers 141.

As there are so many light-'planes entered, it is natural to find that many of them will be flown by private owners. Regarding the new machines referred to above, it is

Regarding the new machines referred to above, it is interesting to note in connection with the Clarke "Cheetah" that the designer and pilot, Flying Officer J. Clarke, won second place in the recent R.A.F. Fighter Competition and also in the Sassoon Cup.

There are three lady pilot competitors, Lady Bailey, Miss Winifred Spooner, and Mrs. A. S. Butler. It might be useful to pilots to remember the new aerodrome at Cambridge whilst flying between Henlow and Norwich. It is Marshall's Aerodrome, and is about two miles east of Cambridge.





[" FLIGHT " Photographs

Princess Ingrid of Sweden, who is staying at Kensington Palace with her father, the Crown Prince of Sweden, visited Stag Lane Aerodrome on June 7 and was taken for a flight over London by Col. The Master of Sempill in a Gipsy-Moth, and then by Capt. de Havilland in the Hawk-Moth. In the group above taken on the occasion are (left to right): Mr. F. L. N. St. Barbe, Capt. A. S. White, Prince Bertil of Sweden, Princess Ingrid, Baroness Palmstierna, and Col. The Master of Sempill. The younger ladies in front are the children of Col. The Master of Sempill. (Inset): Princess Ingrid.

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Solo Flight to India

MR. P. N. KABALI, an Indian pilot, who has recently learned to fly in this country, was reported to have reached Paris on June 7, on his solo flight to Karachi, in his own Simmonds "Spartan" (Cirrus). He had started from Lympne on the same day

Swedish Flight Across North Atlantic

The Swedish airmen, Capt. Ahrenberg, Capt. Floden and M. Ljunglund, left Stockholm on June 9, in a Junkers monoplane of the Bremen type, fitted with three Junkers' 360-h.p. engines, on the first stage of a flight to New York via Iceland and Greenland. They reached Bergen, on the coast of Norway six hours later and then commenced the coast of Norway, six hours later, and then commenced the sea flight to Iceland. Apparently the petrol supply ran low, for the seaplane was forced to land south of Iceland. It was safely towed into Vestman Islands harbour by the steamer Odin, and after a brief overhaul, it continued the flight to Reykjavik, in Iceland, arriving at 9 p.m., G.M.T. A very strong headwind had been encountered on the sea flight, and the seaplane had descended close to a steamer. the weather clears, a further sea flight of 800 miles to Greenland will be attempted, followed by a stage of 1,000 miles to Quebec, and another 800 miles to New York. If the flight is successful, the airmen hope to make a return flight. Their object is to try and prove the suitability of the Northern Air Route for aircraft traffic. They carry wireless apparatus on board, and mail.

South Atlantic Airmen Return

The "Jesus of Great Power," the Brêguet aeroplane in which Capts. Jiminez and Iglesias flew across the Atlantic from Spain to Brazil, has landed at Madrid from Seville.

Italian Service Cruise

THIRTY-FIVE Italian seaplanes left Taranto, Italy, on June 5 for a service cruise in the Eastern Mediterranean and the Black Sea. The first stage of the flight was to Athens, a distance of more than 500 miles. Signor Balbo, the Under-Secretary for Air, representatives of the Army, Navy, and Militia, foreign air attachés, and representatives of the principal Italian newspapers are on board. General di Pinedo s in command. On June 6, Constantinople was reached, and they left for Varna in Bulgaria, the following day. The cruise was resumed on June 9 in perfect formation for Odessa, which was reached in three hours. The landing was made on a lake behind the town, and a cordial welcome was granted them by the Soviet authorities.

Flight to India

Flight to India

MRS. KINGDON-WARD left Croydon by the air mail for India on Saturday morning. She is flying to Karachi in an attempt to reach her husband, Capt. F. Kingdon-Ward, who is reported seriously ill in the wilds of Tonkin-China.

German "Blimps"

The Berlin correspondent of The Times states that the airship which Messrs. Raab-Katzenstein have been building at Kassel (not for a British client, as has frequently been reported but apparently for a well-known German chocolate-

reported, but apparently for a well-known German chocolatemanufacturing firm which already makes extensive use of aeroplanes for advertising), has been damaged by a strong wind, which caught her as she lay anchored to her mast, but will soon be repaired and ready for further trials. The airship is a small semi-rigid craft, 131 ft. long, with two 35-h.p. engines and a gondola to hold three or four people. A second airship, the Parseval-Naatz PN 28, carried out her first trials on June 6 and made a successful flight which lasted This airship is driven by one 70-h.p. engine. She an hour. is apparently also intended for advertisement purposes, and has been built by the Berlin Water and Aircraft Co., Seddin.

New Endurance Flight Started

FLIGHT-COMDR. JAMES WARNER, the Southern Cross Trans-Pacific flight wireless operator, using a single-motored monoplane, christened the San Franciscan, has commenced an endurance flight.

Irish Aviation

MAJOR LESTER D. GARDNER, Director of the Aeronautical Chamber of Commerce of the United States, is on an inspection tour of the Irish Free State in connection with aviation development. He has been received by the president, Mr. Cosgrave, with whom Mr. Gardner discussed plans. He says that he found Mr. Cosgrave genuinely enthusiastic.

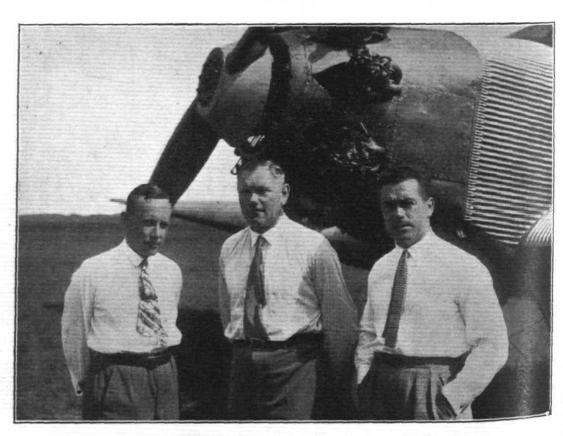
Canada

There are now 53 firms operating aircraft in Canada, and 75,285 flights were made in 1928 as compared with 16,748 in 1927 and 4,755 in 1926, according to the latest returns. The mileage was 1,557,917 in 1928, compared with 209,583 in 1927 and 30,290 in 1926.

Aerial Dusting in Canada

It is reported that experiments in dusting by aeroplane to kill the spruce bud worm will be resumed this year in the Sudbury and North Bay district, Ontario. A large trimotor Ford 'plane will be used for the purpose.

Herr Neuenhofen (right), who reached an altitude of 41,740 ft. on May 26 in the Junkers "Bremen" low-wing monoplane fitted with Bristol "Jupiter" engine, by which he is standing, with his two Junkers engineers, Herr Thiedemann (centre) and Herr Schinzinger, who were responsible for the technical preparations. Subject to official confirmation, this altitude figure is a world's record.



A complete range of AIRCRAFT AND ENGINES

A S makers of the widest and most successful range of British aircraft and engines, the Armstrong Siddeley Development Co., Ltd., is in a unique position to offer the results of its extensive experience on matters relating to air transport, training, fighting or private flying machines on land or sea in any part of the world.

AIRCRAFT

includes the All-Steel Atlas fighter and reconnaissance machines, the All-Steel Siskin single seater fighter, the All-Steel A.W.14 high performance fighter and the Argosy Air-liner.

ENGINES

include the 700-750 h.p. Leopard, the 460-500 h.p. Geared Jaguar, the Supercharged Jaguar, the 230 h.p. Lynx (geared or supercharged), the 130-140 h.p. Mongoose and the 80-88 h.p. Genet.

SASSOON CUP

Siskin-Jaguars finished

 1^{SI} , 2^{ND} & 3^{RD}

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Four other Aircraft Manufacturers are building similar aircraft under licence from Sir W. G. Armstrong Whitworth Aircraft Limited.

Armstrong Whitworth steel aeroplanes were the first steel aircraft to be used in quantity and manufactured in series.

They have been standardised as the single seater fighters of the Royal Air Force and have been in production for over six years.

Armstrong Whitworth spars have shown no deterioration in this period.

Steel is stronger, safer and surer in service than any other metal.

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Making Armstrong Siddeley Air-cooled Aero Engines

Armstrong Siddeley Motors Limited are pioneers of the high-powered air-cooled aero engine.

Their range of engines is the most complete and most universally satisfactory in service. It includes engines of 750, 460, 230, 130 and 80 h.p. Armstrong Siddeley designs have been in the forefront of development for the last ten years.

Their many patented features such as cylinder head, cylinder locking ting, epicyclic gearing and supercharger have proved their value under the severest conditions.

For the greatest reliability and the most enduring economy at home or overseas, on land or sea, fit an Armstrong Siddeley air-cooled engine.

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THE VALUE

of

STANDARDISATION

Most of the important parts of the Armstrong Siddeley Jaguar, Lynx and Mongoose engines are interchangeable. On the 460-500 h.p. Jaguar, 215-230 h.p. Lynx and 130-150 h.p. Mongoose the cylinders, pistons, piston rings, gudgeon pins, gudgeon pin bushes, auxiliary connecting rods, valve gear and rockers, thrust race and carrier, main bearings and propeller boss, and many minor details are identical.

On the Jaguar and Lynx engines, in addition to the above parts, the oil pump, bearer plate, induction case, master rod, front cover and timing gear are also interchangeable. Where several of these engines are simultaneously in service this high degree of standardisation effects great economy in spare parts, personnel, and care and maintenance charges.

The 460-500 h.p. 14 cylinder Jaguar, 215-230 h.p. 7 cylinder Lynx and 130-150 h.p. 5 cylinder Mongoose in single, dual or triple form cover a very wide field of flying requirements.

ARMSTRONG SIDDELEY MOTORS LIMITED

COVENTRY

More " Moths " for Canadian Clubs

Two "Gipsy-Moths" have been delivered to the Moose Jaw. Sask., Flying Club, which now owns three machines. Two "Moths" have also been acquired by the Fort William, Ont., Aero Club.

British Columbia

Western Canada AIRWAYS, LTD., will establish an aeroplane service from Prince George, northward, according to Major D. R. McLaren, British Columbia Manager of the company. A seven-passenger Fokker 'plane will be employed on the new venture, which is expected to be of considerable benefit to mining interests. Major McLaren, in making that announcement, also stated that an aerial survey would be made of territories north of Prince George, especially in the region of Sifton Pass and the Liard River.

Montreal-New York Air Service

CANADIAN COLONIAL AIRWAYS, LTD., has purchased six "Sikorsky" Amphibians, to be operated between Montreal and New York during the summer months, the service being inaugurated on or about June 1. Passengers will be able, if desired, to reach New York, and to return to Montreal on the same day.

Canadian Air Photography

Areas amounting to 65,200 square miles were photographed aerially in Canada last year, and since 1923, the total area photographed has amounted to 262,645 square miles, according to Hon. Charles Stewart, Minister of the

New Zealand's Air Defence

THE New Zealand Defence Minister states that, although New Zealand cannot yet afford to develop an ambitious scheme of air defence, it is vitally necessary to provide a chain of landing grounds to develop an air sense and to foster commercial flying.

New Air Line

A NEW air line from Marseilles to Beirut, Syria, via Naples and Athens, was inaugurated on June 6.

Civil Aviation in Italy

THE "Sociétà Aerea Mediterranea" (S.A.M.) has taken over the service of the Rome-Siracusa-Tripoli air line. Italian "Savoia 55" flying-boats will be used, fitted with 500-h.p. Isotta-Fraschini engines with reduction gear. The same company has also started operations on the Albanian air line of Valona-Argirocastro-Tirana. It is reported that the governments of Spain and Italy have approved the agreements for the regular air services between those two countries. On the "S.I.S.A." air-lines, during the month April, 108 trips have been made covering 40,000 km.

(24.800 miles); 458 passengers and 12,500 kg. of freight, together with 370 kg. of mail, were carried with a regularity 100 per cent. On the same lines, three new tri-motored machines have been put into service, constructed by the "Cantiere Navale Triestino" of Monfalcone. A new direct service between Berlin and Venice is being studied; the trip will be divided among the German Luft Hansa and Italian Transadriatica Companies, and will be accomplished in less than one day

Northern Air Display

Subject to the permission of the Aerodrome Committee, an Air Display will be given at Wythenshawe, Northenden, Cheshire, on Saturday, June 22, commencing at 2.15 p.m. Northern Air Lines, Ltd., are organising the programme.

Municipal Aerodromes

At the conference of the South-Eastern Union of Scientific Societies, held at Brighton on Saturday, Mr. David Edwards, the Brighton borough surveyor, in reply to a question as to whether an aerodrome was to be erected near the famous Devil's Dyke, Brighton, said aerodromes must come, and, whatever spoilation must take place, there was no doubt in his mind that any town with any hope of prosperity would have to provide aerodromes. It was for towns to find the best places for them, and he hoped those interested in the prosperity of the town would assist the town authority. It was not definitely decided where the aerodrome would be at Brighton, but eventually a site must be found if Brighton was to prosper as it should.

New Private Owners

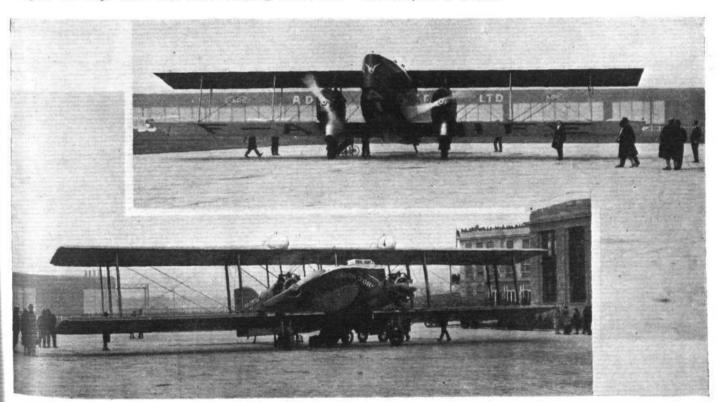
A" GIPSY-MOTH" has been purchased jointly by Mr. C. E. Horne and Mr. L. F. Horne, of Horne Bros., the gentlemen's outfitters, from Malcolm Campbell, Ltd., who are agents for "Gipsy-Moths." They will eventually keep their machine at Heston Aerodrome. It is standard except that eight-hour petrol tanks have been fitted. There is a complete set of instruments in each cockpit and Handley-Page slots are fitted. Messrs. Horne are now learning to fly. Two other members of their family may also become owners of a ' Moth " in the near future.

French Far East Flight

CAPT. ARACHART and Commander Rignot, who are engaged on a Far-East flight in a Breguet machine, reached Rangoon from Calcutta on June 11, after a non-stop flight.

The Duke of Sutherland

It was announced in the London Gasette that H.M. the King had appointed the Duke of Sutherland to be a Knight of the Order of the Thistle, in succession to the late Marquess of Zetland.



THE "GOLDEN RAY" AIR PULLMAN SERVICE: The Air Union have recently introduced a new Pullman Air Service between London and Paris, known as the "Golden Ray." It is operated by new types of aircraft, shown above, which completes the journey in about 2 hrs. 10 mins.—30 mins. faster than hitherto. The most in the product of The machines shown are, top, the Liore and Olivier 2t fitted with two 500 h.p. geared Renault engines, and (below) the Bleriot 165, fitted with two 450 h.p. "Jupiters." Both are of metal construction.

PRIVATE



FLYING

A Section of FLIGHT in the Interests of the Private Owner, Owner-Pilot, and Club Member

RECENT LIGHT 'PLANE EVENTS

New Zealand Air Pageant

2nd Heat

An Air Pageant was held at Auckland, N. Zealand, at the end of April, and the following were the machines and pilots engaged :

Competitors	Machines	Pilots
Auckland Aero Club	Gipsy-Moth	Maj. G. A. C. Cowper.
Auckland Aero Club	Gipsy-Moth	Maj. K. Caldwell.
Auckland Aero Club	Gipsy-Moth Gipsy-Moth	Capt. E. Dickson,
Auckland Aero Chib	Gipsy-Moth	
		Capt. J. Seabrook,
Carried Section 1 at 1000 and 10 man 2 miles 1 at 100 miles	CARROLL CONTRACTOR CONTRACTOR	Capt. D. Harkness.
Hawke's Bay Aero Club	Cirrus-Moth	Capt. T. White.
Marlborough Aero Club	Gipsy-Moth	Capt. Chandler.
Canterbury Aero Club	Gipsy-Moth	Capt. J. C. Mercer.
N.Z. Air Force	Gipsy-Moth	Capt. J. L. Findlay.
N.Z. Air Force	Bristol Fighter	
Hamilton Airways	Gipsy-Moth	Capt. M. C. McGregor
Air Survey and	Gipsy-Moth	Mr. F. D. Mill,
Transport Co.		Mr. J. Smith.
Southern Cross	Blackburn	Lieut, I. Keith.
Airways	" Bluebird "	mont. 1. 1xtitil.
12.0	Avro " Avian "	Capt. K. Hall.
		J-1. 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

The De Havilland Aircraft Co., Ltd., inform us that Gipsy-Moths won first and second places in all the competitions. An Aerial Derby was the principal event, flown over a triangular 12 miles' course round Mangere and Ihumatao Mountains. Results were as follows :-

1st	1st Heat Auckland	Aero	Gipsy-Moth	Capt. Seabrook.
2nd	Club Auckland Club	Aero	Gipsy-Moth	Maj. Caldwell.

	Lill Heat		
1st	Auckland Aero	Gipsy-Moth	Capt. Harkness.
0 1	Club	C: M-11-	Cont Dialors
2nd.	Auckland Aero Club Final	Gipsy-Moth	Capt. Dickson.
1st	Auckland Aero Club	Gipsy-Moth	Capt. Seabrook
	Auckland Aero	Gipsy-Moth	Capt. Harkness.

Capt. Seabrook received 2 secs. start and Capt. Harkness started from scratch.

A landing competition was another event. This was

won by Capt. Findlay on a Gipsy-Moth and Maj. Cowper was second on a Gipsy-Moth.

The same types of machine flown respectively by Capt.

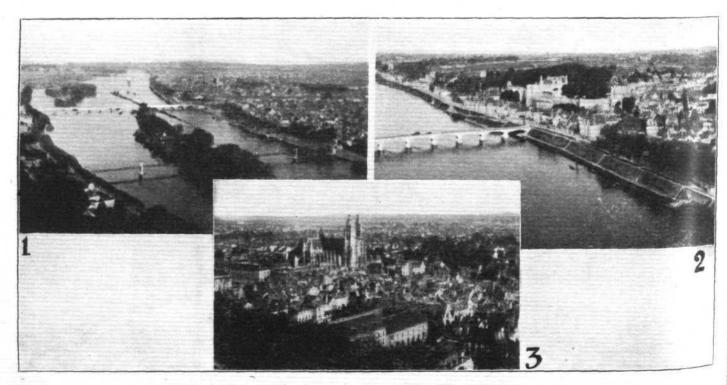
McGregor and Capt. Dickson were first and second in a Balloon Bursting contest.

South African Item .- Capt. R. R. Bentley, who flew between Cape Town and London three times, has written to the effect that his Cirrus-Moth has now completed 44,888 miles.

Solo Flight Round Australia.—Capt. H. R. Grosvenor, A.D.C., to the Governor of South Australia, General Sir Alexander Hore-Ruthven, V.C., has completed a solo flight round Australia in his Cirrus-Moth. He covered about 8,000 miles, and took part in an air search for Flight-Lieut. Moir and Flying Officer Owen, when those officers were missing after flying the Timor Sea last month.

Gipsy-Moths for Night Mail

Capt. A. S. White, A.F.C., Chief Demonstration Pilot to the de Havilland Aircraft Co., Ltd., has lately made many trips to the Continent delivering new Gipsy-Moths to their



These aerial views, were taken in France by Lieut. L. G. Richardson, R.N., during a recent tour in his Cirrus-Moth (1) Orleans; (2) Amboise (sur Loire) Chateau D'Amboise seen above the bridge; (3) Tours.

PIONE ERS of STEEL

"The war gave Gloucestershire a new industry, which has remained with it, and has of late seen notable developments. Here, in the heart of a beautiful country under the green rolling Cotswolds, metal wings for many types of aeroplanes besides the well-known 'Glosters' are made."—

Daily Telegraph.



AIRCRAFT

"The inside of the Gloster is exceptionally factory interesting because of the great variety of types seen in various stages of construction, and because of the big batches of wings for types not designed nor erected here. Almost endless strips of high tensile steel are to be seen passing into huge machines and emerging with rolled top and bottom flanges. They are used for building up light but immensely strong spars."—Daily Telegraph.

GLOSTER AIRCRAFT Co. Ltd.

SUNNINGEND, CHELTENHAM.
GLOSTER WORKS AND AERODROME,
BROCKWORTH, GLOS.

THE STEEL WING Co., Ltd.

The sealed engine GIPSY MOTH tour has now reached a total of

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with only routine external attention AND THE TOUR CONTINUES

The de Havilland Aircraft Co., Ltd., Edgware, Middlesex.

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Wakefield CASTROL Motor Oil

The CIRRUS Engine illustrated is the MARK III type of 85/95 h.p.

CIRRUS Engines are famous for their reliability and they are in daily use all over the world, in addition to possessing a remarkable record of outstanding successes in Air Racing, World Flights and International Competitions.

A CIRRUS Engine enabled Sqd. Ldr. Hinkler to carry out his wonderful record flight from London to Australia in 15½ days, and they are fitted in twenty-seven different types of light aeroplanes.

"It gives us much pleasure to record our satisfaction with Wakefield CASTROL Motor Oil, which is used to lubricate all the CIRRUS Aero Engines built and tested at our Works." We recommend the use of Wakefield CASTROL XXL to lubricate CIRRUS Aero Engines in normal use and Wakefield CASTROL R for racing purposes."

Statement by

Cirrus Aero Engines, Ltd. 89, Kingsway, London.

C. C. WAKEFIELD & CO., LTD., All-British Firm, Wakefield House, Cheapside, London, E.C.2

owners. He delivered the first of the Gipsy-Moths which is to operate the Swedish night postal service from Oslo to Malmo. Except for clearing customs at Lympne, Capt. White's first stop was Rotterdam, where another Gipsy-Moth was found in the hangar. It proved to belong to a private owner who was on a week-end visit to Rotterdam. En route to Hamburg, he passed over the Kaiser's Palace. After leaving Hamburg, he proceeded over Laaland and Zeeland, where he encountered a strange sight in a heavy rain storm: the complete circle of a rainbow. Capt. White made an attempt to fly through the centre of the rainbow but was unsuccessful. At Malmo, the machine was fitted with night flying apparatus.

Capt. White then took the Norwegian pilot as passenger over the route to Gothenburg and Oslo. That trip of roughly 350 miles is accomplished in just over 4 hrs. flying time. After a short delay the machine left again for Malmo with the first mails, returning the next morning with mails from Malmo. The train journey for the stage takes 14 hrs., and a mail machine will make the journey Oslo-Malmo each evening and return each morning.

A Veteran Moth.—We learn that the Mark I Cirrus-Moth G-EBMO, presented by Sir Charles Wakefield to the Lancashire Aero Club, has just completed her first 1,000-hrs. flying. This machine has been in constant service by the Club for over three years and is still in perfect condition.

BRISTOL'S MUNICIPAL AERODROME

THE Bristol City Council received from the Town Planning Committee an important report on the proposed municipal aerodrome, and approved of it recently. The Committee had the advice and assistance of the Air Ministry and the Bristol and Wessex Aeroplane Club. Ltd.

After viewing prospective sites the committee selected one at Whitchurch, and approved of options to purchase the site being obtained on behalf of the Bristol and Wessex Club who have secured such options to purchase for the sum of £16,386, in respect of certain land. The area of the land is 289.5 acres, and, therefore the price will be a little in excess of £56 per acre. This area complies with the requirements of the Air Ministry to provide 1,000 yards in every direction for flying purposes, and affords additional land for the necessary buildings.

The Committee believes that the land referred to affords not only the best but the only site near Bristol which can be considered as desirable from all points of view for the establishment thereon of a municipal aerodrome for the purpose of maintaining the prosperity and aiding the future development of the city. It is conveniently situated to afford easy access to the docks and to the railway station at Temple Meads. The straightest distance from the centre of the aerodrome to Temple Meads is $2\frac{1}{2}$ miles, and by road from the south of the site to Temple Meads is 4 miles.

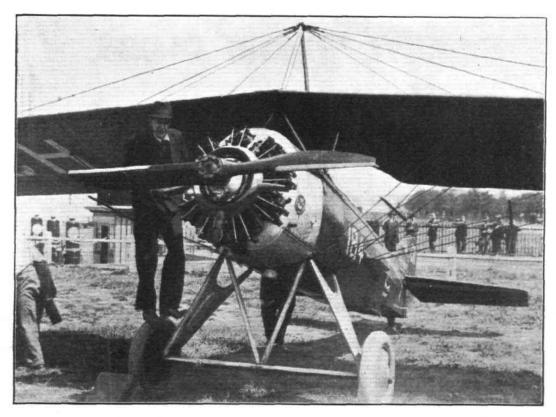
It may be that under the proposed Town Planning scheme for the Whitchurch area that a new road will be planned which will give better and easier access to both the docks and to the city.

The Club offered to transfer the benefit of the option to purchase the site to the Corporation provided the Corporation established an aerodrome thereon, and permit the club upon payment of £100 per annum to use it and the facilities there provided jointly with other persons desiring to make use of the same. It is proposed that such a licence shall be granted to the club for a period of 21 years, determinable by either party at the end of the seventh or fourteenth year. To commence operations it will be necessary to provide a club house, hangars, workshops, water, electric light, drainage, etc. Capital expenditure at the outset will be £23,046.

The club also offered to manage the aerodrome for a period in the first instance of at least twelve months after it is established at a fee of £520 per annum. The committee do not submit any estimate of income, but suggest the following as sources of revenue:—Garaging of privately-owned machines; garaging commercial machines; landing fees; manufacturers of machines—premises for sale, supply, repair, and service; tolls for passengers, mails, and goods; profit on sale of petrol; grazing rights; rent of club premises; letting of spare land between and behind hangars for tennis courts, bowling greens, etc.; rental of restaurant; percentage of profit from displays, pageants, etc.

The committee recommended that the land at Whitchurch

be acquired by the Corporation, and that £23,046 be borrowed in respect of purchase and equipment.



Mr. Randolph Trafford with his Morane-Saulnier parasol monoplane fitted with a 120-h.p. Salmson engine.

Not many private owners go to France for their machines, but Mr. Trafford is very pleased with the performance of this successor of a war-time fighter—the old "M.S." parasol, which saw so much service, not only in the French, but Allied Air Forces. ["FLIGHT" Pholographs

Mrs. A. S. CLEAVER'S HOLIDAY TOUR TO THE EAST

12,000 miles by Gipsy-Moth

HOLIDAY tour, lasting three months, has just been A completed in a light 'plane, by Mrs. A. S. Cleaver, who is the wife of Colonel Cleaver and the daughter of Mr. H. M. Pollock, Finance Minister for Northern Ireland. Mrs. Cleaver used her own machine, a Gipsy-Moth, and was piloted by Capt. Donald Drew, the Imperial Airways pilot, who is often engaged through Imperial Airways for long-distance holiday tours or business tours. Not long ago, for distance holiday tours or business tours. Not long ago, for instance, he flew Mr. Glen Kidston to Africa for a big-game hunting expedition in a Fokker monoplane. He was a warpilot on seaplanes and flying-boats, and is one of Imperial

Airways most experienced pilots.

This tour of Mrs. Cleaver's was taken leisurely, as a holiday tour should be, and the object was purely one of sight-seeing from the air. The usual air route from England to India was mainly followed, and the tourist stayed for brief periods at various interesting towns. They flew alongside the City of Jerusalem on the desert track for one period, when that machine was engaged on the first east-boundair mail flight. The start of the tour from Croydon Aerodrome, on March 8, was simultaneous with the start of Squadron-Leader L. H. Slatter's flight to South Africa in the new all-metal Blackburn "Bluebird" (Gipsy engine), and the parties flew in burn "Bluebird" (Gipsy engine), and the parties flew in company as far as Africa.

Paris was reached in the morning of March 8 and Lyons in the afternoon. Marseilles was the next stage, March 9, and in spite of strong head winds during the following two days, the tourists flew on to Pisa and then Rome, afterwards flying down to Catania, in Sicily, by March 13. The shorter sea crossing to Tunis was selected for reaching the African coast, a distance of 90 miles. They flew down the coast of North Africa, touching at places like Tripoli, Benghasi, Sollum, and Aboukir.

Across the desert they followed the Imperial Airways Air Mail Route, and their outward destination became Karachi. Only one day was spent there, however. The return route was much the same. They made the sea crossing from the African coast at Tunis again, and passed through Marseilles, Paris, and so to Croydon.

En route, Mrs. Cleaver spent a week in Cairo, and several days in Baghdad and Teheran. About 12,000 miles were



Mrs. A. S. Cleaver and Capt. Donald Drew, on their arrival at Croydon, after flying 12,000 miles to Karachi and back in the former's Gipsy-Moth.

flown altogether, and the Gipsy engine was reported by Capt. Drew to have run perfectly throughout, hardly the slightest attention being necessary. Mrs. Cleaver has become very keen on light 'plane touring as a result of this tour. She had previously flown considerably as a passenger. and had taken flying instruction from Col. G. L. P. Henderson.

LONDON AEROPLANE CLUB

(JUNE 2-8).—Instructors: Maj. H. G. Travers and Capt. F. R. Matthews. Ground engineers: C. Humphreys and A. E. Mitchell, Aircraft: The following machines were in commission—G-AABL, G-AABN, G-EBZC, G-AAEX and G-EBXS. Total flying time for the week: 62 hrs. 10 mins. Dual instruction: 34 members received dual instruction. the time being 36 hrs. 25 mins. Solo flying: 27 members flew solo, the time being 25 hrs. 45 mins.

As mins.

Club Aircraft.—On Saturday, the 8th inst., for the first time for many months the whole fleet of club aircraft was operating. As is so often the case, this very satisfactory state of affairs could not be expected to last. About 4 o'clock in the afternoon, the Hon, Miss M. Leith, flying G-AABL, had a slight collision with Capt, the Hon, F. E. Guest on his own machine, G-EBVS. The two aircraft were just about to alight and were a few feet off the ground when the collision took place. The damage to both aircraft was somewhat considerable but both pilots were unburt.

R.A.F. Display.—Members will now have received the circular relating to the R.A.F. Display on July 13, 1929. Members wishing to avail themselves of the privilege of purchasing two tickets for the 10s, enclosure at 5s. each, are requested to make early application to the club at Stag Lane.

BRISTOL & WESSEX ABROPLANE CLUB, LTD.

(JUNE 2-8).—Pilot instructor: E. B. W. Bartlett. Ground engineer: A. W. Webb. Machines in commission (2): YH, TV. Flying time for the week: 11 hrs, 45 mins. Pupils instructed (6): 6 hrs. Soloists (1): 15 mins. Licensed pilots (3): 2 hrs. 30 mins. Passengers (20): 4 hrs.

Bad weather has seriously curtailed our work this week. Capt. Broad came to give us a display last week-end, but it was too rough to do anything. He has very kindly promised to come again if possible, on June 30. On the 4th, 5th and 6th we showed our Pixie at the Three Counties Show at Gloucester. The public generally showed considerable interest in the exhibit and the names of several potential members were taken. It would appear that there are still people who have not yet seen an aeroplane, or some individuals were uncertain whether our machine was in the wrong section. Some patted it, and one timorous fellow actually poked it with his umbrella, still, no one offered it a bun.

On the 8th, Lord and Lady Sherborne were "At Home" at Sherborne Park for a meeting of club machines to which they had most kindly invited numerous guests. Fortunately the weather had changed and a very pleasant afternoon was spent. Four private owners of the club and one club machine made a good show and the guests evidently enjoyed themselves. Over 20 joyrides were given, and we expect half a dozen new members as a result of the meeting. We are most grateful to Lord and Lady Sherborne and the Hon. C.

Dutton for their kind hospitality and all the trouble they took on behalf of the club. There can be no doubt that these informal meetings are excellent propaganda. After the meeting the Hon. H. C. H. Bathurst and Mr. Downes Shaw left for London, having already assisted Mr. Bartlett considerably with the joy-riding.

A third Moth has been ordered, as it has been obvious for some time now that two machines are insufficient.

that two machines are insufficient

CINQUE PORTS FLYING CLUB, LTD.

CINQUB PORTS FLYING CLUB, LTD.

(JUNE 2-8).—Pilot instructor: K. K. Brown. Ground engineer: R. H. Wynne. Machine: PM. Total for week: 7 hrs. 35 mins. Dual instruction Mr. Pitt, 2 hrs. 30 mins.; Mr. Mann, 15 mins.; Mr. Lillingston, 1 hr.; Mr. Ellis, 15 mins.; Mr. Hughes, 1 hr.; total, 5 members, 5 hrs. Soloists under Instruction: Mr. Ellis, 45 mins.; Mr. Richardson, 1 hr.; total, 2 members 1 hr. 45 mins. Tests, (6), 50 mins.

Rain, low clouds and high wind, stopped flying on Sunday, Monday and Thursday, and only allowed 35 mins. on Saturday, which accounts for the low hours.

Three new members began instruction this week. They were: Mr. T. C. Mann, of Wye College, Mr. H. Hughes, of Carshalton, Surrey, and Mr. A. Pitt, of Waterford, Ireland.

At the annual general meeting Maj. F. W. Butler, M.C., J.P., and Dr. E. D. Whitehead Reid, resigned from the Board of Directors, and Sir Montague de P. Webb, C.I.E., C.B.E., who lives at Sandgate, and is well known in connection with the National Citizen's Union, and Mr. R. M. C. Moss of Hythe were elected to fill the vacancies.

Petrol consumption figures for the two machines for the months of April and May work out as follows:—G-EBRI—Cirrus Mark (2) engine—April 4:443 gallons per hour; May, 4:352 gallons per hour. G-EBPM—Cirrus Mark (2) engine—May, 4:689 gallons per hour.

These figures are exceedingly satisfactory for machines used for instruction of the great expense in connection with the insurance and other.

These figures are exceedingly satisfactory for machines and other purposes.

Owing to the great expense in connection with the insurance and other matters, the official club machine will only take part in the Rally at the Rotterdam Flying Meeting, going over on Thursday, the 27th instant, and returning on Friday, the 28th instant. It is hoped, however, that the club will further be represented by one of our ab initio pupils, Mr. H. R. Law, in his X Moth G-EBYJ, who intends to enter for all the competitions. It is possible that some members will travel across by boat for the meeting.

HAMPSHIRE AEROPLANE CLUB

(May 25-31.)—Pilot instructors: Flight-Lieut. F. A. Swoffer, M.B.E. and Mr. W. H. Dudley. Ground engineers: Mr. E. Lenny and Mr. J.



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Elliott. Aircraft: D.H. 60 Moth G-EBOH and Spartan G-AAFR. Flying time for the week: 47 hrs. 40 mins. Pupils under instruction: (31), 23 hrs. 45 mins. Soloists: (9), 3 hrs. 20 mins. "A" pilots: (17), 12 hrs. 20 mins. Passengers: (15), 5 hrs. 20 mins. Instructors, solo and tests: (8), 2 hrs.

55 mins.

On Monday, Flight-Lieut. Swoffer collected the Gipsy Moth that Mr. Shand has just acquired. Mr. Shand has been trained by the club, which he joined at the end of March last, and obtained his "A" licence six weeks after

at the end of March last, and obtained his "A" licence six weeks after enrolling.

On Thursday, Mr. Boden, who was keen to record his vote at Derby, was flown by Flight-Lieut. Swoffer to Hucknall. It is rumoured that the Chief Instructor did not show such political enthusiasm in his own case, and that he found the distance to the local polling station at Hamble rather too far.

On Monday, Mr. Dudley, with Mr. Kabali, attempted to get through to Paris with our veteran Moth OH. Incidentally, the weather and visibility over the channel were impossible, and he was forced to return to Lympne.

Mr. Bayly went solo on Saturday, and Mr. Allinson on Sunday. Both were successful, but the latter's second effort resulted in his overshooting. The fund for the fourth machine has increased to a gratifying extent. Although we still need some more money, it is expected that the order will be placed within the next few days.

Flying time for the month ended May 31, 1929.—Total time for the month, 213 hrs. 40 mins.; dual, 95 hrs. 35 mins.; solo, 28 hrs. 40 mins.; "A" pilots, 57 hrs. 5 mins.; instructors, solo and passengers, 32 hrs. 20 mins.

[June 1-7].—Pilot instructors: Flight-Lieut. F. A. Swoffer, M.B.E., and Mr. W. H. Dudley. Ground engineers: Mr. E. Lenny and Mr. J. Elliott. Aircraft: D.H. 60 Moth G-EBOH and Spartan G-AAFR. Flying time for the week: 16 hrs. 20 mins. Pupils under instruction: (15), 7 hrs. 10 mins, Soloists: (7), 3 hrs. "A" pilots: (8), 4 hrs. 25 mins. Passengers: (2), 20 mins. Instructors (solo and tests): (11), 1 hr. 25 min.

Bad weather has caused a decided slump in our flying hours this week, but Lieut. F. B. C. Smith, R.N., and Mr. H. S. Turner, both achieved successful first solos.

The engineers are keeping up their reputation for efficient work com-

The engineers are keeping up their reputation for efficient work combined with rapidity, and top-overhauled an engine a few days ago in a shade hrs. Members are reminded that they are allowed by the R.A.F. Display Com-

Members are reminded that they are allowed by the K.A.F. Display committee to purchase two tickets for the 10s. enclosure at Hendon on Saturday, July 13, for the price of one. Applications should be made to the Secretary. The fund for our new machine has increased slowly but surely, and, in an effort to raise the balance required, we are inviting members who have not already subscribed to send along 10s. each. We are getting quite expert at

are any subscribed to send along 10s, each. We are getting quite expert at sending out begging letters!

King's Cup Air Race.—The club has again undertaken the organisation of the control at Hamble on July 5. All members are being notified and it is hoped that those who are prepared to assist will send their names to the Secretary at the earliest possible moment.

LANCASHIRE AERO CLUB

(May 25-June 8).—Flying time, 38 hrs. 45 mins. Instruction: (22), 19 hrs. 50 mins. Solo flights (25), 11 hrs. 30 mins. Passenger flights: (21), 4 hrs. 45 mins. Tests: (17), 2 hrs. 40 mins.

Instruction (with Mr. Hall): Taylor, S. Williamson, Stross, Nelson, J. G., Greg, Ashworth, J. H., Ashworth, W., Lister, Miss Baerlein, Whitehouse, Maxwell, Ruddy, Russell, Hindley, Wilkinson, Foote, Dane, Kay, Harrison, Elwell, Garner, Riley; (with Mr. Cantrill): Ashworth, W., Garner. Machine on commission: EC.

Soloists (under instruction): Ashworth, W., Greg, Forshaw, Williamson, Pilots: Mills, Garner, Williams, Lacayo, Weale, Goodfellow, Williamson, Whitehouse, Ruddy, Michelson, Hall, R. F., Fallon, Goss, Gort, Lacayo, Meads, Gattrell.

Meads, Gattrell.

Mads, Gattrell.

Passengers (with Mr. Meads): Goss, Miss Aston; (with Mr. Goodfellow): Miss Wilkinson, Mills; (with Mr. Hall, R. F.): Williamson, Hall, H.; (with Mr. Lacayo): Mills, Brown, Goss; (with Mr. Mills): Bailey, Miss Reever, Garner; (with Mr. Harrison): Harrison, S.; (with Mr. Elwell): Corbett, Mrs. Aust, knight; (with Mr. Gatrell): Garner; (with Mr. Scholes): Mills, Laing, Thompson, Emery.

Once again there have been between 60 and 70 members and friends in the air, although fortune has been very unkind to us as regards aircraft.

Mr. Fallon set out on a cross-country to Liverpool and crashed XD rather badly near Bridgenorth. MQ and QL are still being re-assembled. To fill up the cup Mr. Williamson removed the greater part of the undercarriage and arscrew from EC on Saturday. The machine was flying again by mid-day on Sunday, which reflects considerable credit on the ground staff.

Despite all these calamities our instructor found time to launch Mr. Greg on a very successful first solo.

On a very successful first solo.

The House Committee arranged The Dansant in the Clubhouse on 2nd list., which was well attended. It proved just as popular as flying and much cafer.

LIVERPOOL & DISTRICT AERO CLUB

LIVERPOOL & DISTRICT ABRO CLUB

[May-26—June 1.]—Machines in commission: Avro Avians, WK, ZM, XY. Instructor: Flight-Lieut. J. B. Allen. Ground staff: Messrs. H. Pixton and M. Mason. Total flying time: 40 hrs. Pupils, dual: (19). 10 hrs. 5 min.; solo (6), 5 hrs. 40 mins. "A" pilots (solo): (22), 16 hrs. 15 min. Passengers flights: (25), 4 hrs. 20 mins. Test flights: (8), 40 mins. New pupil, Mr. W. Rogers. Mr. R. W. Anderson performed a very good art solo flight this week. Miss M. Hughes completed her tests for her aviator's Certificate, and Mrs. Eills, who did her first solo a week ago, flew her "figure eights" test in a very workman-like manner.

ZM's undercarriage partly disintegrated on Friday evening whilst Mr. Brooking was taxi-ing her across the aerodrome. Upon inquiring for details, one was informed that "It just happened."

Mr. Taylor has become our second private owner, having taken delivery of a very smart "Moth" this week-end.

Landing Competition.—The second competition for the John Leeming challenge Trophy took place on Saturday. Results:—Mr. Brooking, 29 points; Miss Marjorie Hughes, 27½ points; Capt. Marstrand, 27½ points; Mr. Thoruton, 27 points; Mr. Naylor, 26 points; Mrs. Naylor, 25 points; Mr. Moulsdale (previous winner), 24 points: 14 others also ran. We are pleased to say that Thornton and Naylor are both members of the flying committee: of the other members, Davison and Leete both "straffed the tape," and Christie and Crosthwaite apparently had business elsewhere. Our thanks are due to Squad.—Leader Whistier, D.S.O., A.F.C., of Scaland, and Pilot Officer Snaithe, who acted as judges. They have evolved a system of marking which works with extraordinary fairness, and their kindly criticism was most instructive. Unfortunately, Mr. Leeming, who came for from Manchester to see the fun, had to return early in the evening. It was noticed that the general standard of proficiency had increased considerably since the last competition.

Miss Hughes' performance is particularly interesting, in view of

et a few weeks ago.

Pixton, M. Mason. -Instructor: Flight-Lieut, J. B. Allen. Ground staff: Howard ason. Aircraft: Avians, WK, XY. Flying time, 36 hrs.

55 mins. Instruction, 12 hrs. 45 mins. Soloists: 3 hrs. 40 mins. "A' pilots: 11 hrs. 40 mins. Passengers: 8 hrs. 25 mins. Tests: 25 mins.

The club welcomes the following new members who commenced instruction during the week. Messrs. W. M. S. Fox. G. E. Waterworth, and H. D. Mills. On Monday last, Mr. Thornton took WK to London making very good time, doing the journey in less than two hours.

On Tuesday Pilot Officer Parker and his brother set out with the intention of adding to the 4th of June celebrations at Eton by landing on Agars' Plough—they did—and with the aid of the De Havilland Aircraft Company and the local ironmonger, they were able to fly the machine back on the following day. On Saturday, the Rev. Woosnam-Jones completed all flying tests for his "A" licence in a most successful manner. W-J is the Club's first padre to qualify, but there is another, who will soon be hard on his heels, or should one say wings?

one say wings

NEWCASTLE-UPON-TYNE AERO CLUB

NEWCASTLE-UPON-TYNE ABRO CLUB

(JUNE 3-9).—Instructor: G. M. S. Kemp. Engineer: W. Dunning. Assistant, J. Tait. Aircraft: 3—PT, LX, QV. Flying time: 50 hrs. 45 mins. Instruction: 18 hrs. 15 mins. Solo training: 4 hrs. 35 mins. "A" pilots: 8 hrs. 40 mins. Passengers: 18 hrs. Tests: 1 hr. 15 mins.

Sir Alan Cobham in his "Giant Moth" "The Youth of Britain," called at Cramlington while on his tour of the country and gave a series of joy rides to those who had never experienced air travel.

For the first day he was joy riding on the Newcastle Town Moor, but the heavy downpour of rain during the night prevented him from continuing on the Moor, and consequently he gave his passenger flights at the Cramlington Aerodrome. The Mayors of Newcastle, Morpeth and Wallsend had the pleasure of flying with Sir Alan, and they evidently enjoyed it. Sir Alan's stay at the Aerodrome ended rather unluckily. While taking off, his engine cut out, and it seemed as if he would get away again, but he made a forced landing in a very skilful manner, there being no one injured.

THE NORTHAMPTONSHIRE AERO CLUB

[MAY 26—JUNE 1).—Instructor: E. F. Palmer. Ground Engineer: Gallagher. Aircraft: 1—RX. Flying time: 11 hrs. 10 mins. Instruction: hrs. 25 mins. Soloists: 1 hr. 55 mins. Passengers: 20 mins. Tests:

30 mins.

Mr. Whittome of Peterborough, did an excellent first solo on Sunday being the second pupil of Mr. Palmer's to do so.

Bad weather made instruction impossible for three days. To-day (Tuesday)

Bad weather made instruction impossible for three days. To-day (Tuesday) we are taking delivery of a new Gipsy-Moth and on Thursday a further new Gipsy-Moth is being delivered.

(JUNE 2-8).—Instructor: E. F. Palmer. Ground engineer: J. Gallag her. Aircraft (?): IC and IE. Flying time: 8 hrs. 5 mins. Instruction: 3 hrs. 15 mins. Soloists: 2 hrs. 40 mins. Passenger: 1 hr. Tests: 1 hr. 10 mins. Weather stopped flying on Sunday, Tuesday, Wednesday and Thursday, and as the club closed as usual on Monday, the time represents 2 days' flying.

and as the club closed as the flying.

On Tuesday morning we had a visit of Mr. and Mrs. Powis on Moth G-EBNY, en route from Newcastle to Reading.

The club took possession of two new Gipsy-Moths during the week.

Mr. S. P. Tyzack, the club's first soloist, has recently taken delivery of a new Gipsy slotted Moth AAGS.

SOUTHERN AERO CLUB

(JUNE 3-9).—Although we had a fairly quiet week, owing to the nature of the reather, the week-end made up for it, and quite a number of pupils turned up or dual.

for dual.

We were very pleased to see Miss S. O'Brien again, when she paid us a visit by air during the week. On Saturday Mr. T. Neville Stack flew down on his machine, UF.

machine, UF.

Mr. Barnet, one of our members, carried out his height test and night flying on his own Le Rhone Avro, G-AAED at Croydon, for his "B" licence, which he is now awaiting.

YORKSHIRE AEROPLANE CLUB

(June 2-8).—Pilot instructor: Flight-Lieut, H. V. Worrall, D.S.C. Ground engineer: R. Morris. Assistant ground engineer: G. Speight. Machines in commission: (3) RF, SV and BD. Flying time for the week: 25 hrs. 20 mins. Instruction: (5), 3 hrs. 10 mins. Soloists: (6), 3 hrs. 30 mins. "A" Pilots: (16), 18 hrs. 30 mins. Tests: (1), 10 mins.

Last Sunday we had a visit from Miss Leathart and Mr. Runciman of the Newcastle Club in a "Spartan."

On Wednesday Mr. Artindale and Mr. Dooks did their first solos and put up very good shows.
On Saturday Mr. S. Fields successfully completed his tests for his "A'

FROM THE FLYING SCHOOLS

Brooklands School of Flying, Brooklands Aerodrome

Brooklands School of Flying, Brooklands Aerodrome

(June 3-9).—Total flying time, 35 hrs. 35 mins.

The past week has been full of activity and the total number of flying hours is well up to record. Our latest Chinese pupil, Mr. H. W. Mok, has qualified for his "A" licence and is shaping splendidly for a first-class pilot. We have to report two first soloists, Dr. Mac Kenzie and Mr. R. L. S. Mainwaring, who both put up very creditable performances.

Mr. L. Niewenhuizen has just returned to the fold after a fortnight's tour of continental aerodromes, which proved to be not without excitement to our enthusiastic "Flying Dutchman," as his Moth G-AAAG turned turtle on one occasion, owing to the throttle being left open when he got out of the machine. We hear from him that the Dutch pilots at Rotterdam are very loud in their praises of the performance of the "Moth."

Sir Philip Richardson left for Barcelona last Friday on his D.H. 50 piloted by Mr. E. A. Jones. We have received a wire reporting their arrival at their destination at 3 o'clock on Sunday, after a splendid journey.

A very successful rally was organised last Saturday at Maidenhead through the joint enterprise of Mr. Donald Stevenson, of Stevenson's Garage, Maidenhead and this school. The occasion was the opening of an aerodrome on the Maidenhead-Windsor Road by His Worship the Mayor of Maidenhead by the fact that a thousand people gained admission into the aerodrome and over 200 people were taken up for joy rides. The outstanding thrills of the afternoon were two stunt flights by Capt. Hubert Broad, in which he gave a display of double bunting, and a spectacular parachute descent by Mr. John Tranum in a Russell-Lobe Parachute. The school wishes to express its appreciation of the help given by Capt. Geoffrey De Havilland and the staff of the De Havilland Aircraft Co. Ltd., who arrived on the new aerodrome in force and contributed greatly to the success of the meeting. We also extend our thanks to Mr. Alliott on his Klemm Monoplane, Mr. Hanstock of Pratts respective machines.

CAMBRIDGE AERO CLUB'S AIR DISPLAY

THE Cambridge Aero Club, which is a branch of the Suffolk and Eastern Counties' Aeroplane Club, held an Air Display at Conington Aerodrome on June 10 and 11. The Display was officially opened by Mr. C. R. W. Adeane, Lord Lieutenant of Cambridgeshire. Members of the Cambridge Club gave exhibition flights in Blackburn Bluebirds' (Genets). The next event was the finish of the inter-club rally which was open to light aeroplane clubs or private owners who were members. The pilot who crossed the finishing line nearest to noon was the winner. Mr. A. Mousdale, of the Liverpool Aero Club, was successful. It was his first solo cross-country flight. He successful. It was his first solo cross-country flight. He flew an Avro "Avian." The prize was £10, presented by Sir Charles Wakefield. During the luncheon period spectators were conducted round the machine park to inspect the machines.

In the afternoon there was a Grand Parade and Fly Past, headed by Lady Bailey, the Club's President, in her coupé

Gipsy-Moth.

A Balloon-Bursting Competition followed, in which Flight-Lieut. T. Rose was judged the winner on his Gipsy Moth, with Flight-Lieut. Le Poer Trench, on the Halton

monoplane, second. monoplane, second.

A Landing Competition was held, Mr. R. W. H. Knight winning on his own D.H. 53 (Cherub). The Klemm monoplane (Salmson) flown by Flying Officer E. H. Alliott won second place. There was a desert rescue event, to depict as accurately as possible an incident which actually occurred in Iraq. A patrolling machine, a Blackburn "Bluebird" (Genet) flown by Dr. James Sleigh, of the Suffolk Club, made a "forced descent" in the "desert." He was immediately attacked by "Arabs." The pilot defended himself and signalled for assistance. A friendly fighter machine (Gipsy-Moth flown by Flight-Lieut, T. Rose) fighter machine (Gipsy-Moth flown by Flight-Lieut, T. Rose) appeared and attacked the "enemy" with "machine-gun

Further aerial assistance arrived in the form of two more Blackburn "Bluebirds" (Genets) and the "enemy" were successfully driven off. Lady Bailey next flew over in her coupé Gipsy-Moth to render "first aid" to the wounded.

Mr. Tranum also contributed to the varied programme, wing-walking on a light 'plane and also riding astride the Klemm monoplane.



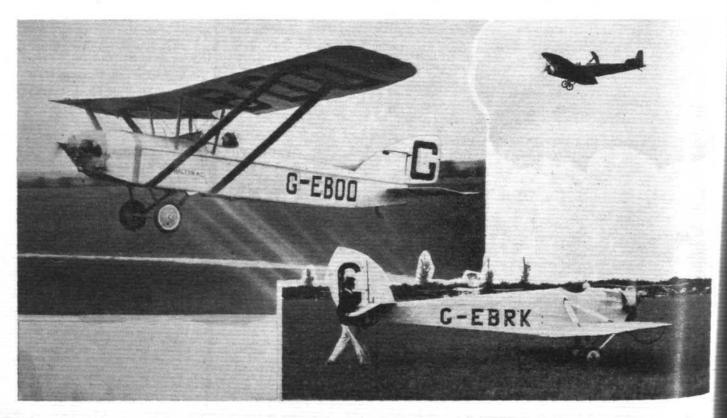
CONINGTON PERSONALITIES: (Left to right)—Dr. J. Sleigh, Mrs. Adeane and Mr. C. R. W. Adeane, Lord Lieutenant of Cambridgeshire.

Many pilots gave aerobatic displays. Mr. G. Lowdell, the Suffolk Club instructor, gave a display in unison with Mr. McKay, both flying Blackburn "Bluebirds" (Genets). Amongst the machines there was the Henderson Glenny single-seater monoplane (A.B.C. "Scorpion"). It arrived by

lorry and was unpacked, assembled and flown within a remarkably short time. In the evening the Beardmore "Inflexible" arrived from Martlesham. Flying was continued until dusk. A similar programme was carried through the next day, Tuesday.

MARSHALL'S AIR DISPLAY

The May Week air pageant celebrating the opening of Marshall's Aerodrome, Cambridge, was held on the afternoon of Sunday, June 9, in very fair weather. About forty



Below is Mr. R. W. Knight, who won the Landing Competition in his D.53 ("Cherub"). Above, the Halton monoplane ("Cherub") landing in the circle, flown by Flight-Lieut. Le Poer Trench. Inset is Mr. John Tranum astride the Klemm monoplane in flight.





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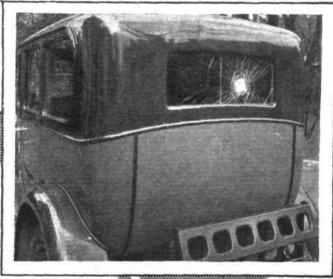
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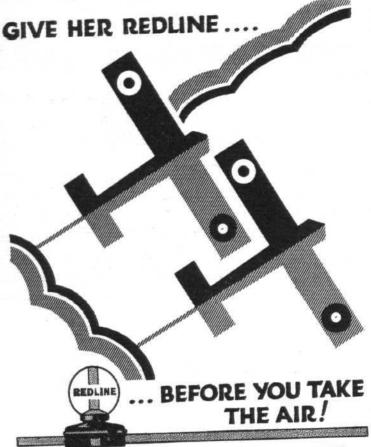
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["FLIGHT" Photograph
Lady Bailey starting up her Coupe "Gipsy-Moth" to
play the role of Red Cross Nurse in the "Arab attack."

machines were present. Mr. D. G. Marshall, M.B.E., who owns a large and well-appointed garage and motor business in Cambridge and was, in fact, the first private owner of a motor car in that town, has, for many years, been a keen advocate of aviation. The band of the Cambridgeshire Regiment provided the musical programme and the flying items were announced through loud speakers.

The afternoon's events opened with a fine display of aerobatics by Captain Broad on a "Gipsy-Moth," his manœuvres being executed with precision and finish. Next came a low-altitude parachute descent by Mr. J. Tranum with a Russell "Lobe" parachute, followed by formation flying on three D.H. "Moths," by Flight-Lieut. Wiblin and Flying Officers D. A. Boyle and H. R. D. Waghorn. This was undoubtedly the most impressive item of the afternoon, and the sight of the three machines flying low over the aerodrome in close formation, the centre one square and the two outer ones crabwise, aroused warm applause from the crowd. Then came a number called "Bombing the Baby,"

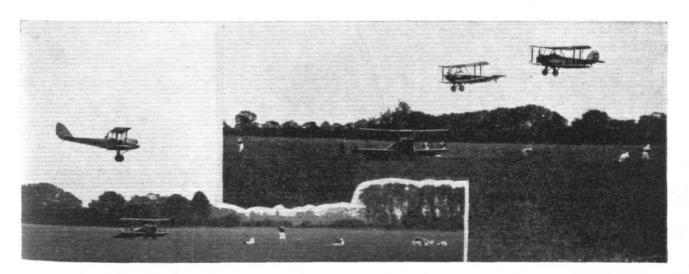


" Flight " Photograph

The Henderson Glenny single-seater monoplane (A.B.C. "Scorpion") arriving at Conington. It was assembled and flown in remarkable time.

the baby in this instance being a supercharged sports Austin Seven car skilfully driven by Mr. Poppé, who successfully dodged the heavy shower of bombs launched at it by two D.H. "Moths." Mr. Tranum next gave an exhibition of wing walking, and then came the balloon-bursting competition, for which there were six entries. This was won by Mr. I. C. Horton, on D.H. "Moth" ZK-AAO, which, we understand, he has just purchased to take back to New Zealand with him in a few weeks' time. Mr. Horton destroyed his first balloon with such despatch that a lady was heard to remark that he had not given the poor thing a sporting chance. Mr. A. C. Jackaman was second, and the third place was won by Miss Spooner. Mr. Staniland put his "Cirrus-Spartan" through a variety of manœuvres before we retired for tea.

When the machines were all lined up for the tea interval, one was better able to appreciate their numbers and variety. D.H. "Moths," of course, in all their various guises, some twenty strong; two Westland "Widgeons"; five Avro "Avians"; a "Cirrus-Spartan"; Mr. Mitchell's Westland "Woodpigeon"; Dr. Whitehead Reid's Westland "Widgeon" Wendy; an S.E.5a; a D.H.53; the H.A.C.1, flown by Flight-Lieut. le Poer Trench; a Klemm, flown by Mr. Alliott; a Morane-Saulnier 137, flown by Mr. Randolph Trafford; and lastly, the little Avro "Baby." The "Baby,"



[" FLIGHT " Photograpis

"ARAB ATTACK": Dr. J. Sleigh down in the "desert" with his "Bluebird," menaced by the "Arabs." Flt.-Lieut. T. Rose dives to his assistance in the Gipsy-Moth (left), then two Blackburn "Bluebirds" ("Genets") come to complete the defeat of the "enemy."

which was brought over by Mr. H. H. Leech is, we believe, the original machine used by Sqdn.-Ldr. Bert Hinkler in his flight to Turin in 1920, but it has now been fitted with a "Cirrus" engine and converted to a two-seater. Despite its long and eventful history, it still looked quite lively, and we shall, no doubt, see more of it at future meetings. Mr. Randolph Trafford's Morane-Saulnier, in which he flew over from Geneva a week or two back, is quite an attractive looking machine. It has a 120-h.p. Salmson engine and is somewhat larger than the British light aeroplanes, though the accommodation and performance are of the same order. The machine is a parasol monoplane with wire bracing, and Mr. Trafford assures us that it is a delight to fly.

Mr. Trafford assures us that it is a delight to fly.

After tea, the hard-worked Mr. J. Tranum, who is fast becoming a sine qua non of our flying meetings, made another parachute descent from the little Klemm, this time a delayed

action drop from about 3,000 ft. The length of his dead drop up to the opening of the parachute was timed by a sporting gentleman at five and two-fifths seconds. The more mathematically minded of our readers may like to amuse themselves by calculating the distance. The Aerial Golf competition attracted fourteen entries, and the result was a tie between Flight-Lieut. T. Rose and Flight-Lieut. le Poer Trench, each of whom placed shots within 2½ yards of the target. Some of the assistant judges, who were stationed on the target, appeared very uncomfortable at times. The evening ended with an aerial relay race between two teams of four machines each, the first pair of each team having to fly a two miles course, land and transfer batons to the second pair, who then started their engines, flew the course and over the finishing line. The times were very close and an exciting finish was seen.

W. J. P.

THE Navy League, that old-established and patriotic association of Britons, have recently entered a well timed protest against the fatuous cry of the lunatic pacifist in regard to one-sided disarmament. General disarmament—a thing which never will be—is a very different proposition, and in the centuries to come will, no doubt, be able to look after itself. But in regard to the silly call for England to disarm, etc., whilst endorsing the great ideal of a general limitation of armaments, this is what the Navy League have to say:—

League have to say:—
"We disagree with those who advocate one-sided disarmament. This country has already led the way in disarmament by reducing its Navy, Army, and Air Force, and we feel that further reduction on our part without parallel reductions on the part of the other Powers will not only jeopardise the security of this country and the Empire, but will imperil world peace by rendering it impossible for Great Britain to meet her great obligations.

"The Navy League confides that the Government, of whatever party it may be composed after the General Election, will make proper provision for the defence of this country and of the Empire, and especially that an adequate Navy and Fleet air arm will be maintained for the defence of our trade routes and communications upon the high seas. In view of our progressive trade with the British Dominions, India, and all other parts of the Empire, it becomes increasingly important to defend and keep open the sea routes of the world."

To all of which I heartily subscribe "Hear, hear."

"COMMEMORATING First Trans-Atlantic Air Mail,
June 14, 1919." In the above words the Ministry
of Post, Newfoundland, has decided to record the
tenth anniversary of the Alcock-Whitten Brown Atlantic
flight, by the issue of this special post-mark on June 14,
1929. It is well that small gestures in this direction should
help towards emphasising the fact that the first Atlantic
flight was accomplished by Britons flying British machine
and engine.

A STRONG indictment comes from Mr. H. Morey, of Sutton, as to the consequences following the installation of a R.A.F. aerodrome. The selection of Oxford in this connection is the peg on which Mr. Morey hangs his complaint. In his view Oxford is doubly unfortunate in being forced to submit to the ruthlessly levelling activities of the R.A.F. in addition to the blight of a new industrialism, but the R.A.F. unaided usually succeeds, he says, in stamping a bleak ugliness upon any rural or semi-rural area where it places an aerodrome. Continuing, Mr. Morey writes: "I have Halton Camp and Waddon in mind. My impression of the first place is a 'devastated area' encroaching upon Wendover, one of the most charmingly mellow little towns in England, which it almost contaminates by its unkempt disorder of derelict wooden hutments and neglected ditches, while the dominating feature of Waddon is now a league-long fence of unpainted corrugated iron 6 ft. high, which is gradually obliterating from the memories of unfortunate residents that their home district was at one time a green and pleasant place."

SURELY if the above be a record of facts it should be up to the Air Ministry to make an effort to modify such a state of things.

AVIATION would certainly appear to be coming into its own at last, anyway in America, when a woman, Mrs. Mabel Willebrandt, has been appointed counsel for the Aviation Corporation of the United States at Washington, with a salary of £10,000 per annum (or is it dollars?). This must be some position to have attained, when it is remembered that Mrs. Willebrandt, to take up the new position, is resigning her present post of U.S. Assistant Attorney-General in charge of Prohibition Enforcement. Her new task, it is stated, will be to make a comprehensive survey of National and State laws as affecting the aviation industry. She shares in the universal opinion prevailing there that America is on the threshold of a rapid expansion of air traffic, and adds that, in order to promote every phase of aeronautical advance, while safeguarding individual enterprises and investors, it is necessary to secure uniformity and stability in the law and its procedure.

TALIAN officers the other day took their bearings around the Schneider Trophy course in a "Southampton" flying-boat, and seemed to be greatly pleased with their experience and reception when they visited Calshot air station. Apropos the contest, Signor Balbo, Italian Under-Secretary for Aviation, speaking in the Chamber last week, had some pertinent remarks to make as to the Italian aviation position, and incidentally announced that entirely new pilots would represent Italy in the Schneider Trophy event. Sig. Balbo, in dealing with the Air Estimates, asserted that Italian aviation had now reached perfect efficiency and was ready for any emergency.

was ready for any emergency.

"No country," he said, "has been so fast as Italy in perfecting the aerial weapon. She has nearly surpassed England in this respect, because Signor Mussolini does his utmost towards having the strongest aerial force in Europe."

And thats, that.

ONLY the quickest point-to-point method can satisfy Sir Henry Segrave's active speed mind, thus enabling him to honour the numerous calls upon him from all parts of the compass. So it was that he travelled by air the other day to Berlin, where he was due to show the paces of his racing motor boat, Miss England, against the picked German champions. Again Sir Henry proved himself unbeatable on the water as he had done both on land and on water in America.

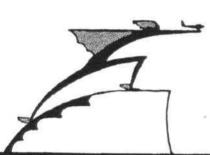
WHEN Dr. Nansen makes his North Pole effort next Spring with the Graf Zeppelin, his original plan will probably be somewhat modified. The present idea is that the European base for the expedition is to be removed from Murmansk to the Finmarken coast of Northern Norway, and the American base to Fairbanks, Alaska, instead of Nome. The erecting of mooring masts at both places is to begin as soon as possible.

Dr. Nansen sets forth as the principal aims of the expedition to the fixing of boundaries of the deep Arctic Ocean and an investigation of the possible landing-places for dirigibles. With this end several attempts will be made to land. Only incidentally will a tour be made to the North Pole, but extensive plans are on foot, it is stated, to map the Siberian coast by photograph. The expedition is to last three weeks, and the start will be made early in April. During the whole of the flight the Zeppelin will have a double crew.

AIRWORK LIMITED

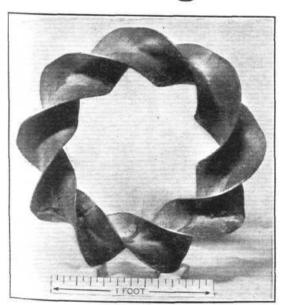
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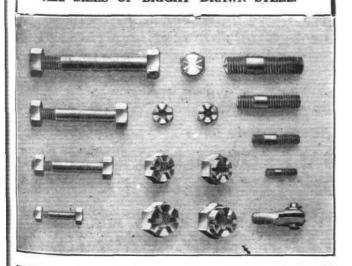
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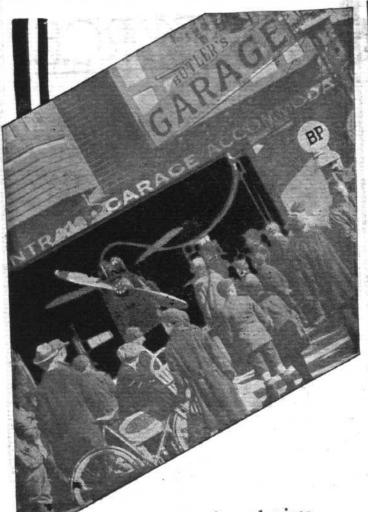
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The illustration depicts Captain H. H. Balfour's D.H. Moth being filled up with "BP" at a garage at Broadstairs.

Captain Balfour is Conservative member for the Isle of Thanet.

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SAUNDERS

Air Press A

London Gazette, June 4, 1929.

Air Commodore F. W. Bowhill, C.M.G., D.S.O., is appointed Director of Organisation and Staff Duties, Air Ministry (May 19) (vice Air Vice-Marshal Sir Ivo L. B. Vesey, K.B.E., C.B., C.M.G., D.S.O.).

Air Vice-Marshal Sir Ivo L. B. Vesey, K.B.E., C.B., C.M.G., D.S.O. (Maj.-Gen. Army), relinquishes his appointment as Director of Organisation and Staff Duties, Air Ministry, on return to Army duty (May 19).

The following are granted short-service communs. as Pilot Officers for four years on active list, with effect from and with seniority of May 22:—R. R. Frith, J. M. Wells, G. E. Sampson, R. V. Griffin, R. C. Jordan, G. K. Tulloch. Pilot Officer on probation H. P. Wilson is confirmed in rank (April 2); Flying Officer S. Pritchard-Barrett relinquishes his short-service commun. (May 31); Flying of ill-health (May 27).

Officer S. Pritchard-Darrett reiniquishes his short-service commin. on account of ill-health (May 27).

Air Vice-Marshal Sir Ivo L. B. Vesey, K.B.E., C.B., C.M.G., D.S.O. (Major-Gen., Army), relinquishes his temporary commin. on return to Army duty (May 19). The short-service commin. of Pilot Officer on probation J. A. G. Baker is terminated on cessation of duty (May 29).

Stores Branch

The following Pilot Officers on probation are confirmed in rank and promoted to rank of Flying Officer (April 28):—E. N. A. Crowe-Browne, A. W. Rule, E. J. H. Starling, J. W. Hunt, J. E. Reynolds, F. G. Lee. Flying Officer D. J. Divett is transferred to Reserve, Class B (June 5). Flying Officer Reginald G. Fussell is dismissed the service by sentence of General Court Martial (May 29).

Medical Branch

Flight Light C. T. O'Neill O. B. E. M. Ruis promoted to reals of Squadron.

Flight-Lieut. C. T. O'Neill, O.B.E., M.B., is promoted to rank of Squadron

The following Flying Officers are promoted to rank of e 1):—G. W. McAleer, M.B., E. P. Carroll. eut. (June 1) :-

Chaplains Branch
The Rev. J. R. Appleyard is granted short-service commu. as Chaplain, with the relative rank of Squadron Leader (May 29); the Rev. G. L. Robinson, D.S.O., relinquishes his short-service commu. on completion of service (June 1).

RESERVE OF AIR FORCE OFFICERS

M. H. Findlay is granted a commn. in Class A as Flying Officer (May 11);
J. V. Roberts is granted a commn. in Class A as Flying Officer (May 11);
J. V. Roberts is granted a commn. in Special Reserve as Flying Officer on probation (April 18); Flying Officer C. G. H. E. Lumsden is transferred from Class A to Class C (May 11); Flying Officer W. F. Hamilton relinquishes his commn. on account of ill-health, and is permitted to retain his rank (June 4); the commn. of Pilot Officer on probation R. D. A. Hodson is terminated on cessation of duty (April 30).

Medical Branch

H. C. Smith, M.B., is granted a commn. in Class D.D. as a Flying Officer (June 4).

AUXILIARY AIR FORCE

No. 600 City of London (Bombing) Squadron.—The following to be Pilot Officer:—W. H. Wetton (April 8).

No. 601 County of London (Bombing) Squadron.—The following to be Pilot Officer:—P. Du Cane (April 12).

No. 602 City of Glasgow (Bombing) Squadron.—The following Pilot Officers to be Flying Officers:—A. D. Farquhar (Feb. 17); W. H. Mitchell (May 1).

ROYAL AIR FORCE

Appointments.-The following appointments in the Royal Air Force are

General Duties Branch
Group Capt.—I. T. Courtney, C.B.E., to H.Q., Fighting Area, Uxbridge, for Air Staff Duties; 15.4.29.

Wing Commanders: G. W. Murlis-Green, D.S.O., M.C., to Armament and Gunnery School, Eastchurch, to command; 31.5.29. J. Sowrey, A.F.C., to Station H.Q., Northolt, to command (temporarily); 21.5.29.

Squadron Leaders: F. E. P. Barrington, to R.A.F. Depot, Uxbridge; 2.5.29. J. Everidge, M.C., to R.A.F. Depot, Uxbridge; 2.5.29. H. A. Smith, M.C., to No. 58 Sqdn., Worthy Down; 10.6.29. T. Q. Studd, D.F.C., to R.A.F. Depot, Uxbridge; 20.5.29. L. H. Cockey, to R.A.F. Depot, Uxbridge; 10.5.29. G. D. Nelson, D.S.C., A.F.C., to H.Q., Inland Area; 305.29.

90.5.29.
Flight-Liouts.: O. R. Gayford, to No. 22 Sqdn., Martlesham Heath; 25.29. A. R. Jones, to No. 4 Sqdn., S. Farnborough; 21.5.29. C. G. Hancock, to Armament and Gunnery School, Eastchurch; 15.5.29. K. L. Harris, to Station H.Q., Andover; 2.5.29. H. J. Saker, to H.Q., No. 1 Air Defence Group, Sloane Street, S.W.1; 18.5.29. L. M. Elworthy, to No. 100 Sqdn., Bicester; 13.5.29. C. O. Towler, D.S.M., to R.A.F. Depot, Uxbridge; 1.6.29. A. E. Beilby, to No. 35, Sqdn., Bircham Newton; 23.5.29. C. R. Davidson, M.C., to No. 4. Sqdn., S. Farnborough; 10.6.29. R. M. Trevethan, M.C., to No. 100 Sqdn., Bicester; 4.6.29. F. J. W.

Mellersh, A.F.C., to Station H.Q., Upper Heyford; 26.5.29. L. C. Wynne-Tyson, to R.A.F. Depot, Uxbridge; 31.5.29.

Iyson, to R.A.F. Depot, Uxbridge; 31.5.29.

k. Flying Officers: P. C. Fair, to Andover Communication Flight; 21.5.29.
L. E. Goodman, to Aircraft Depot, India; 6.5.29. E. V. S. Lacey, to R.A.F. Depot, Uxbridge; 6.6.29. G. N. J. Stanley-Turner, to 45 Sqdn., Middle East; 12.5.29. J. C. Cunningham, to Aircraft Park, India; 3.5.29. H. J. Paine, to Air Ministry (D. of E.); 22.5.29. W. L. Robertson, to Home Aircraft Depot, Henlow; 27.5.29. H. C. MacPhail, to R.A.F. Depot, Uxbridge; 6.4.29. B. A. C. Danbury, to Armoured Car Section, Aden; 12.29. A. P. Wayte, to No. 14 Sqdn., Middle East; 8.5.29. L. S. Hill, to No. 29 Sqdn., North Weald; 21.5.29. V. Harris, to R.A.F. Depot, Uxbridge; 2.5.29. W. G. Wainwright Fahey, to R.A.F. Depot, Uxbridge; 1.6.29. W. R. Baird, to Home Aircraft Depot, Henlow; 1.6.29.

Pilot Officers: R. N. Dashwood-Tandy, to R.A.F. Practice Camp, Catfoss; 6.5.29. H. T. Lines, to No. 2 Sqdn., Manston; 17.5.29. R. R. Frith, to No. 35 Sqdn., Bircham Newton; 6.6.29. R. V. Griffin, to No. 33 Sqdn., Netheravon; 6.6.29. R. C. Jordan, to No. 12 Sqdn., Andover; 6.6.29. G. E. Sampson, to No. 41 Sqdn., Northolt; 6.6.29. G. K. Tulloch, to No. 32 Sqdn., Kenley; 6.6.29. J. M. Wells, to No. 100 Sqdn., Bicester; 6.6.29. H. C. Friday, to No. 55 Sqdn., Iraq; 8.5.29. G. C. Butler, to No. 100 Sqdn., Bicester; 28.5.29. J. Coverdale, to No. 35 Sqdn., Bircham Newton; 31.5.29.



AIR MINISTRY NOTICES TO AIRMEN

Broadcasting of Weather Reports from Croydon Radio Station

1. As from the date of issue of this Notice and as a trial measure, arrangements will come into force whereby Croydon Radio Station will broadcast weather reports at frequent intervals to all aircraft within range, should weather conditions, such as bad visibility, along the British sector of the continental routes seriously affect the safety of aircraft in flight.

2. Such broadcast weather reports will be carried out by means of radio-telephony on a wave length of 900 m., and will be prefixed by the international radiotelephonic safety signal, which consists of the French word "Sécurité" repeated three times.

3. All aircraft intercepting this safety signal will immediately cease transmission until the weather report has been broadcast.

(No. 29 of 1929.)

Schneider Trophy Contact

mission until the weather report has been broadcast. (No. 29 of 1929.)

Schneider Trophy Contest

1. The Schneider Trophy Contest will take place, weather permitting at Ryde Roads and adjacent waters on September 6 and 7, 1929.

2. Flight, in the locality of the contest, of all civil aircraft other than outpeting aircraft will be subject to the following restrictions and to any others which may be announced later.

3. The undermentioned Royal Air Force seaplane stations and aerodrome will not be available for use by civil aircraft from the date shown against each until another date, which will be notified in due course:—Calshot seaplane station, August 1, 1929. Lee-on-Solent seaplane station, September 1, 1929. Gosport aerodrome, August 16, 1929.

4. The undermentioned licensed civil aerodromes will be available for use by civil aircraft, subject to the restrictions shown against each:—

Southampton (Hamble) Aerodrome.—Available for aircraft of all types. This aerodrome will be under the control of the Automobile Association. No haugar aecommodation can be provided, but application for parking space should be made to the Aviation Department, Automobile Association.

Comes (West) Aerodrome.—Private licensed aerodrome, available only for light aircraft entered in the Certificate of Registration as in Class A for landing lee and for Avro 504K, 536 and 548. The aerodrome will be under the control of the Automobile Association. No hangar aecommodation will be available, but parking space for not more than 60 light aircraft can be arranged. Applications for permission to land and for parking space should be addressed to the Aviation Department, Automobile Association.

Cowes Seaplane Station.—Private unlicensed seaplane station available for all types of marine aircraft. Moorings for aircraft up to 8 in all will be provided by the station owners (Messrs. S. E. Saunders, Ld.), but all applications for such moorings and assistance in connection therewith should be addressed to the Aviation Department, Automobile Associ

(No. 32 of 1929.)

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PERSONALS

Married

The marriage took place on June 6, at St. James's, Piccadilly, between Mr. Arthur Frank Garton-Ovenden, late R.A.F., only son of Mr. and Mrs. Arthur Garton-Ovenden, of Auerley, and the Hon. Nea Robinson, younger daughter of Lord and Lady Rosmead, of 10, West Bolton Gardens.

Mr. Dwight Morrow, the United States Ambassador to Mexico, and Mrs. Morrow, announced, on May 27, that their daughter Anne was married to Col. Lindbergh, the Transatlantic airman. The ceremony took place at their country home at Englewood, New Jersey.

PHILIP SHEPHERD, Wing Commander (retd.) R.A.F., was married on June 1, quietly in London, to Josephine Mildred, daughter of Brigadier-Gen. A. Parker, C.M.G., and Mrs. Parker, of Love Hill, Langley, Bucks.

To be Married

To be Married

The engagement is announced between Bustace Lionel Leader, R.A.F., and late the King's Regt., and Miss Esmay Brown, only daughter of Dr. and Mrs. Geoffrey Brown, of Sydney, Australia.

The engagement is announced between Flight-Lieut. R. E. M. B. Milne, R.A.F., eldest son of Mrs. E. R. B. Milne, of O'Fids, Cromer, Norfolk, and Evelyn, second daughter of Mr. and Mrs. A. Parry, of Ambala, India.

The marriage between Squadron-Leader Charles Stewart Morice, M.C., R.A.F. (retired), and Mrs. Evelyn Vernon Kenderdine, widow of Capt. W. H. Kenderdine, Royal Sussex Regt. (T.F.), was arranged to take place this month.

An engagement is announced between Squadron-Leader Denis Osmond Mulholland, A.F.C., R.A.F., third son of J. H. Mulholland, J.P., and Mrs. Mulholland, of Donaghadee, County Down, Ireland, and Felice Grant, widow of W. Herbert McConnell, of Dundesart, Belfast, and youngest daughter of the late Mr. and Mrs. James McIntyre, of Glasgow.

The marriage arranged between Squadron-Leader R. D. Oxland, R.A.F., and Miss Barbara Williams, Driftway, Dorchester, will take place very quietly on June 15.

The marriage arranged between Flight-Lieut. Roy Weatherley White

quietly on June 15.

The marriage arranged between Flight-Lieut. Roy Weatherley White, R.A.F.M.S., younger son of Dr. and Mrs. White, of Bow, London, and Elfrepa Marjory, elder daughter of Mr. and Mrs. Milward, of Ewell, Surrey, will take place at St. Joseph's Church, Epsom, on June 15, at 2.30

The marriage arranged between FLIGHT-LIEUT. C. B. WINCOTT and MARJORIE ANNE CRAMER ROBERTS will take place at Holy Trinity, Folkestone, on Wednesday, July 3, at 1.15.

The late Mr. George Holt Thomas, of Portland Place, W., and North Dean, Hughenden, Bucks, a pioneer of civil aviation, founder of the Society of British Aircraft Constructors and the International Air Traffic Association at The Hague, and Imperial Airways, Ltd., left £29,000.

CORRESPONDENCE

[The Editor does not hold himself responsible for opinions expressed by correspondents. The names and addresses of the writers, not necessarily for publication, must in all cases accompany letters intended for insertion in these columns.]

JUNKERS AT KING'S COLLEGE
[2197] In your issue of May 9 you publish on p. 388
a photograph of students working on a Diesel engine at
King's College, which appears to indicate training of technical personnel for the crew of R.101. You will be interested to hear that the motor employed at King's College and shown in the photograph is a double-piston Diesel heavy-oil engine of the well-known Junkers construction, which was chosen by King's College because of its excellent qualities for purposes of study. Permit us to draw your attention to this, because it is almost unknown in aviation circles that we have been engaged in the development and construction of stationary, ships' and other heavy-oil motors since the Dessau, May 25, 1929.

Junkers Motorenbau G.M.B.H. nineties.

AIR "TRAMPS"

[2198] In your esteemed journal of May 9, you refer to our regular freight service between Berlin and London as a tramp " service. We would point out that the night air services on the Berlin-London and Berlin-Paris routes for the transport of goods are not tramp services, but regular daily services. Only the service on the Berlin-Paris route does not run on Sundays, but is supplanted by a day service which carries passengers and freight. The machines leave Tempelhof, Berlin, at 2 a.m., and arrive after intermediate landings in Hannover, Essen/Mülheim, Düsseldorf and Cologne at 10.45 in London, and 9.45 in Paris. Delivery of articles upon which there is no duty is made on the same day by 1 o'clock. Goods on which there is a duty usually reach their destination by evening.

Through the air-rail services introduced in Germany, towns which either are not on any of the air routes or which have bad air connections, are in a position to make use of the advantages of this special freight service, in that goods from North Germany are sent to Cologne, from East Germany to Berlin, and from South Germany to Cologne.

We should be grateful if you would make this matter clear in your esteemed journal. DEUTSCHE LUFTHANSA A.-G.

Berlin, W.8.

May 29, 1929.

Fifty Years Old

We wish to record our congratulations to the wellwe wish to record our congratulations to the well-known firm of patent agents and consulting engineers, Stanley Popplewell and Francis, of Jessel Chambers, Chancery Lane, W.C.2, which firm is this year celebrating its fiftieth year. During this period the firm's predecessor, Mr. W. W. Popplewell, and later the present principals, Mr. A. H. Stanley and Mr. E. Lloyd Francis, have built up and maintained a very gratifying reputation, resulting in the appreciation of a large circle of clients. They tell us that it is their intention to maintain, and even extend, this reputation in the future, and to give the best service to their clients, old and new, based upon professional knowledge and actual experience of practically every phase of patent practice at home and abroad.

New Books LEARNING to fly is rapidly becoming the fashion now, and a simple text book on the subject is opportune. Flight-Lieut. Frank A. Swoffer, M.B.E., has written such a book with every qualification for so doing, for he is Chief Instructor of the Hampshire Light Aeroplane Club, and he is daily instructing the new army of pupils, most of whom have no previous experience. His book should be read by all who propose to take instruction, for it will give them an advantageous start, which will immediately win the favour of the instructors, who get very tired of the repetition of unsophisticated questions, although at the same time, for the sake of the pupil, they prefer him to give expression to points that puzzle him rather than nurse them and possibly become a victim of them.

Flight-Lieut. F. A. Swoffer introduces a slight individual aspect to his method of training which, as we know, is not entirely favoured by all other experts. There was recently a very interesting debate between him and Capt. de Havilland on his (Swoffer's) preference for teaching pupils to fly by feel rather than entirely by instruments. But the question is probably answered by each pupil for himself by his own degree of sensitiveness to

the controls. Sir Sefton Brancker writes an appreciative foreword in this book. The book is called "Learning to Fly," published by Sir Isaac Pitman and Sons, Ltd., 7s. 6d. net.

Mr. Elliott White Springs draws again upon the war experiences of the "War Birds" for his latest book. He

writes his usual vivid American slang and his stories are not so important as the intimate description of air fighting the combat of skill and strategy between the Germans and the Allies, the war-time machines and their performances, and the American airman in action. The menace of the superior Fokkers at one period is revealed in his account, and a mass air fight between Camels, Dolphins, S.E.5's and Fokkers is vividly described. The book is called "Above the Bright Blue Sky," published by J. Hamilton, Ltd., price 7s. 6d. net.

PUBLICATIONS RECEIVED

Aluminium. Its Production and Application. By Edgar T. Painton. A Lecture Given Before the Rugby Engineering Society. The British Aluminium Co., Ltd., Adelaide House,

T. Painton. A Lecture Society. The British Aluminium Co., Ltd., Adelaide House, King William Street, London, E.C.4.

Aeronautical Research Committee Reports and Memoranda: No. 1204. (Ae. 364).—Wind Tunnel Experiments on the Design of an Automatic Slot for R.A.F. 34 Section. By F. B. Bradfield and F. W. G. Greener. Sept., 1928. Price 9d. net. No. 1215 (Ae. 374).—The Accelerated Motion of a Cylindrical Body Through a Fluid. By H. Glauert. Jan., 1929. Price 9d. net. H.M. Stationery Office, Kingsway, London. W.C.2.

How to Drive. By the Editor of "The Motor." 11th Edition. Temple Press, Ltd., Rosebery Avenue, London, E.C.1. Price 2s. 6d. net. Post free 2s. 9d.

Motor Cycling Manual. 8th Edition. Temple Press, Ltd., Rosebery Avenue, London, E.C.1. Price 2s. 6d. net. free 2s. 10d.

Punch Summer Number. May 13, 1929. Bradbury, Agnew and Co., Ltd., 30-34, New Bridge Street, London, Agnew and E.C.4. Price 1s.

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